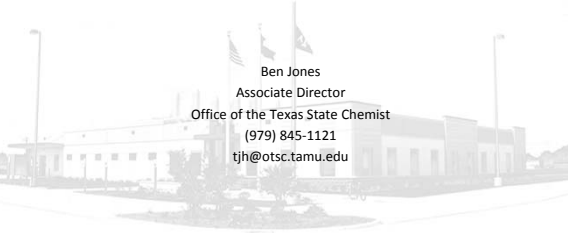



## Bovine Spongiform Encephalopathy (BSE)

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OFFICE OF THE TEXAS STATE CHEMIST  
Texas Feed and Fertilizer Control Service • Agriculture Analytical Service



## Bovine Spongiform Encephalopathy (BSE)

Bovine Spongiform Encephalopathy (BSE), commonly called “mad cow disease”, has had a substantial impact on the livestock industry in the United Kingdom (UK) and other countries where the disease has been diagnosed.

Through November 2006, the Office of International des Epizooties (OIE), the world organization for animal health, has reported there have been more than 190,000 cases of BSE documented in more than 25 countries since the disease was first diagnosed in 1986 in the UK.

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## Bovine Spongiform Encephalopathy (BSE)

There is also strong scientific evidence and general agreement that the UK outbreak was amplified by practices that involved the feeding of animal protein products derived from infected cattle to other cattle, especially young calves.

Infected carcasses and slaughter by-products were sent to rendering facilities where the material was cooked and processed into a powdered, protein-containing meat-and-bone meal (MBM).

This infected MBM was then incorporated as an ingredient into cattle feed. In 1988, the UK banned the use of sheep and cattle remains in cattle & sheep feeds.

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## United States Department of Agriculture (USDA) & Health and Human Services (HHS) Firewalls

- ❑ The existing multiple firewalls, developed by both the USDA and HHS, Food and Drug Administration (FDA) have been extremely effective in protecting the American consumer from exposure to BSE.
- ❑ The firewalls include USDA and FDA import regulations, restrictions, and controls; USDA surveillance of the United States cattle population; and FDA's 1997 and 2008 animal feed ban regulations.

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## BSE Import Regulations and Controls

- ❑ The United States has implemented a number of measures since 1989 to prevent amplification of the disease in the United States.
- ❑ 1989 – USDA, Animal and Plant Health Inspection Service (APHIS) prohibited the importation of live cattle and other ruminants and certain ruminant products, including most rendered protein products, into the United States from countries where BSE is known to exist.
- ❑ 1991 - USDA banned imports of ruminant meat and edible products and most by-products of ruminant origin from countries with confirmed BSE cases.

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## BSE Import Regulations and Controls

- ❑ 1997 - APHIS extended import restrictions on ruminants and ruminant products from all of the countries in Europe due to concerns about widespread risk factors and inadequate surveillance for BSE in those countries.
- ❑ 2000 - APHIS expanded its prohibitions on imports of rendered ruminant protein products from BSE-restricted regions to include rendered protein products of any animal species because of concern that cattle feed supposedly free of ruminant protein may have been cross contaminated with the BSE agent.
- ❑ 2000 - FDA issued import alerts on animal feed ingredients for APHIS-listed countries.

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## BSE Surveillance Program

- 1990 - The United States implemented an active surveillance program for BSE. The sampling strategy was designed to detect one BSE-infected animal per million cattle and to take into account regional differences while striving for uniform surveillance throughout the country.
- Since 1993, BSE surveillance in the United States has met or exceeded international standards as outlined in the Terrestrial Animal Health Code of OIE, the world organization for animal health.

## FDA Animal Feed Ban Regulations

- 1997 – FDA prohibited the feeding of all mammalian protein to cattle and other ruminants, with the exception of milk and milk products, blood and blood products, gelatin, plate waste, and pure pork and pure equine protein from single species processing plants (62 FR 30936; June 5, 1997; codified at 21 CFR 589.2000).
- Requirements:
  - Adequate measures for preventing cross-contamination
  - Maintaining receipt, processing and distribution records for one year (and make available for inspection)
  - Labeling products with the caution statement “Do not feed to cattle or other ruminants”

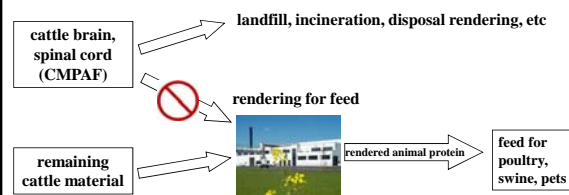
## 1997 BSE Feed Rule (Feed Ban)



## FDA Animal Feed Ban Regulations

- 2008 – FDA prohibited the use of cattle material prohibited in animal feed (CMPAF) in ALL animal feeds (April 25, 2008; codified at 21 CFR 589.2001).
- Prohibits for use in ALL animal feed the following material known as “cattle material prohibited in animal feed” (CMPAF):
  - brains and spinal cords from cattle  $\geq$  30 mos. of age
  - entire carcass of cattle not insp. & passed for human consumption
    - unless shown to be less than 30 months of age OR
    - brain and spinal cord removed
  - entire carcass of BSE-positive cattle, including tallow, defined as fat originating from cattle or bison (buffalo)
  - tallow made from CMPAF that contains more than 0.15% insoluble impurities
  - mechanically separated beef made from CMPAF

## 2008 BSE Feed Rule (Feed Ban)



## FDA Animal Feed Ban Regulations

- These two feed ban regulations, 589.2000 and 589.2001 were critical safeguards to help prevent the spread of BSE through cattle herds by prohibiting the feeding of most mammalian protein to ruminant animals, including cattle, and prohibiting the feeding of CMPAF to ALL animals.

## Results of Prohibited Mammalian Protein Regulations

The FDA's December 1998 enforcement plan for the ruminant feed ban rule includes education as well as inspections. Over 76,000 inspections have been performed as of March 6, 2010. The majority of these inspections (around 72%) were conducted by State feed control officials, with the remainder conducted by FDA officials.

Of the 8,885 firms handling prohibited material, their most recent inspection concluded that:

- 1 firm (0.01) was classified as OAI
- 192 firms (2.2%) were classified as VAI

## Inspection Conclusions

- Inspection conclusions are reported as Official Action Indicated (OAI), Voluntary Action Indicated (VAI), or No Action Indicated (NAI).
- An OAI inspection classification occurs when significant objectionable conditions or practices were found and regulatory sanctions are warranted in order to address the establishment's lack of compliance with the regulation. An example of an OAI inspection classification would be findings of manufacturing procedures insufficient to ensure that ruminant feed is not contaminated with prohibited material. Inspections classified as OAI will be promptly re-inspected following the regulatory sanctions, in order to determine whether adequate corrective actions have been implemented.

## Results of Prohibited Mammalian Protein Regulations

- A VAI inspection classification occurs when objectionable conditions or practices were found that do not meet the threshold of regulatory significance, but do warrant advisory actions to inform the establishment of findings that should be voluntarily corrected. Inspections classified as VAI usually occur as a result of more technical violations of the Ruminant Feed Ban. Examples could include things such as minor recordkeeping lapses and conditions involving non-ruminant feeds.
- An NAI inspection classification occurs when no objectionable conditions or practices were found during the inspection or the significance of the documented objectionable conditions found does not justify any further actions on the part of the firm.

## Regulatory Components and Administrative Strategies

- Enforcement
- Charges and Enforcement Approach
- Recalls
- Refusals

## Enforcement

- Much of the industry has complied with the regulations as a result of education and voluntary compliance. However, some inspections still occasionally reveal that some firms are out of compliance. Whenever potentially violative conditions are found, evidence should be collected to support the enforcement action. Some of the primary tools for documenting violations would include inspectional observations, admissions, photographs, and record review.
- Warning letters should be considered for situations that are classified as OAI.

## Charges and Enforcement Approach

- Adulteration – Section 402(a)(2)(C) of the Food, Drug, and Cosmetic Act prohibits the use of unapproved food additives. Section 402(a)(4) prohibits the use of material considered potentially injurious to ruminant and public health. Prohibited animal proteins in animal feeds and feed ingredients would cause the feed to be adulterated.
- Misbranded – Section 403(a)(1) of the Food, Drug, and Cosmetic Act prohibits a label to be false and misleading. Section 403(f) require any word, statement, or other information required to be displayed in a prominent or conspicuous manner. Animal feeds and feed ingredients that contain prohibited material but fail to bear the required caution statement or do not display it in a prominent or conspicuous manner would cause the feed to be misbranded.

## Recalls

- ❑ When violations are encountered during an inspection, the firm's intentions concerning the recall of any adulterated and/or misbranded products from commercial distribution should be determined.
- ❑ The firm should be provided the opportunity to voluntarily recall all violative feeds and feed ingredients and dispose of the products appropriately.
- ❑ If the recall is ineffective or the firm refuses to voluntarily recall the product(s), State regulatory actions such as embargos or stop-sales should be initiated, along with an FDA-requested recall and press release.

## Refusals

- ❑ Sections 703 and/or 704 of the Food, Drug, and Cosmetic Act provide that records of interstate movement of food and the holding thereof during and after such movement must be made available for inspection and copying.
- ❑ Refusal by a firm to access and/or copy such records will result in the FDA/Office of Enforcement (OE) consideration to obtain an inspection warrant under Section 704.

## Texas Regulatory Program

- ❑ The Office of the Texas State Chemist (OTSC), Feed and Fertilizer Control Service (FFCS), under the direction of the Director of the Texas Agricultural Experiment Station is responsible for administering enforcement of the Texas Commercial Feed Control Act.
- ❑ Surveillance inspections are conducted under state and federal authority, to determine compliance with the FDA 1997 and 2008 feed ban regulations.
- ❑ Surveillance samples of animal feeds and feed ingredients are collected and analyzed under state and federal authority to determine compliance with the FDA 1997 and 2008 feed ban regulations.

## Surveillance Inspections

- ❑ Approximately 500 surveillance inspections are conducted annually by the Texas Feed and Fertilizer Control Service, under state and federal authority.
- ❑ These inspections are focused on the the feed manufacturers and their related industries, including renderers, feed ingredient manufacturers, food/feed salvagers, integrated operations, ruminant feeders, on-farm mixer/feeders, and commercial transporters.
- ❑ All surveillance inspection results are shared with FDA.

## Surveillance Samples

- ❑ Approximately 500 surveillance samples are collected annually by the Texas Feed and Fertilizer Control Service, under state and federal authority.
- ❑ These samples are analyzed by real time polymerase chain reaction (PCR) analysis and any presumptive positive samples are confirmed by microscopy.
- ❑ All surveillance sample results are shared with FDA.

## FY 2010 Texas Surveillance Inspection and Sample Results

- ❑ 481 BSE inspections were conducted.
- ❑ 3 inspections resulted in a "notice of adverse inspectional observations" or FDA 483.
- ❑ 500 samples were collected and evaluated by real time PCR.
- ❑ 17 of the real time PCR evaluations resulted in DNA amplification with bovine primers, initiating microscopy evaluation for confirmation.
- ❑ 6 microscopy evaluations indicated the possible presence of non-exempt or prohibited protein materials.

## FY 2010 Texas Surveillance Inspection and Sample Results

- These 6 analytical results indicating the possible presence of non-exempt or prohibited protein materials resulted in trace-back investigations designed to determine the source or cause of the contamination and to document the corrective actions taken by the manufacturers to prevent the presence of any prohibited mammalian proteins in the future.

Department of Health and Human Services  
Food and Drug Administration  
**REPORT OF INSPECTION FOR COMPLIANCE WITH 21 CFR 318.2000 AND 318.2001**

FD-503 (Rev. 12/10/09)

Inspection Date: \_\_\_\_\_  
Inspected By: \_\_\_\_\_  
Inspected At: \_\_\_\_\_  
Inspected For: \_\_\_\_\_  
Inspected By: \_\_\_\_\_  
Inspected At: \_\_\_\_\_  
Inspected For: \_\_\_\_\_

Section 1 - Complete for ALL firms

1. a) Type of firm inspected? (Check ALL that apply)

Retailer  
 Distributor/Wholesaler  
 Feed Mill (FDA Licensed)  
 Transporter (Inland)  
 Other (Specify): \_\_\_\_\_

Feed Mill Manufacturer  
 Animal Feed/Feed Supplier  
 On-farm Feed Mixer  
 Feed of Ruminants  
 Human Feed Processor

Feed of Ruminants  
 Feed of Poultry  
 Feed of Swine  
 Feed of Aquaculture  
 Feed of Other (Specify): \_\_\_\_\_

2. Does the firm handle/manufacture/process, blend, distribute, transport or use feed or feed ingredients that are intended for the feeding of non-ruminant animals?  
 Yes  No

3. Does the firm handle/manufacture/process, blend, distribute, transport or use feed or feed ingredients that are intended for the feeding of ruminant animals?  
 Yes  No

4. Is the firm a manufacturer of feed? (21 CFR 318.2000)  
 Yes  No

5. If the firm is a manufacturer of feed, does it use below normal feed or animal feed formulations?  
 Yes  No

6. If yes, does below normal feed contain not more than 1% 10% inorganic impurities?  
 Yes  No

7. Does the firm receive feeds or feed ingredients that contain or may contain prohibited material (PM)? (Check only one)

YES, but PM is Only in Feed of Ruminants  
 YES, but PM is Only in Feed of Poultry  
 YES, but PM is Only in Feed of Swine  
 YES, but PM is Only in Feed of Aquaculture  
 YES, but PM is Only in Feed of Other (Specify): \_\_\_\_\_

8. If Question 7 is "YES," but PM is Only in Feed of Ruminants, Poultry, Swine, or Aquaculture, check all of the following that describe voluntary safeguards the firm has in place to ensure they do not receive prohibited material:

Supplier assurance from suppliers that they no longer receive/distribute any products containing prohibited materials  
 Supplier assurance from manufacturers that they do not transport products containing prohibited materials  
 Supplier assurance from manufacturers that they utilize dedicated transport equipment OR utilize clean-out measures that adequately prevent commingling or cross-contamination  
 Testing of incoming materials (Please describe): \_\_\_\_\_

Without procedures for the label review of incoming materials  
 Uses only vegetable source products and uses no animal products  
 Uses animal products only from exempted sources (Check all that apply):  
 Dead  "Pink water"  Examine  Fish  Milk  Plasma  Feeding  Gelatin

FORM FDA 3179 (03/06) Page 1

Section 2 - Complete for ALL firms EXCEPT: Firms that are ONLY Q1a) Firm Type "Other" OR Firms that are ONLY Q1a) Firm Type "Feeder of Ruminants"

2. Are the outgoing feeds or feed ingredients containing prohibited materials labeled with the routing statement? (Do not feed to cattle or other ruminants) (Check only one)

No Outgoing Feed/Ingredients containing PM  
 PM Only in Feed of Ruminants  
 Yes  No

3. Describe records the firm maintains in tracking prohibited materials throughout their receipt, processing and distribution:

Date of receipt of purchase or sale or delivery  
 Name and address of the seller  
 Name and address of the purchaser  
 Identification of the product  
 Quantity

B. Copies are available for inspection  
 See only vegetable source products and uses no animal products  
 See only feed of ruminants or feed of poultry  
 See only feed of swine or feed of aquaculture

4. Does the firm manufacture, process, blend, repackage, or transport BOTH products containing prohibited materials AND feeds or feed ingredients that may be used for ruminants?  
 Yes  No

5. If the answer to Q4a is "NO," then SKIP to Question 11

6. If the answer to Q4a is "YES," does the firm have a system in place to avoid commingling and cross-contamination?  
 Yes  No

7. If the answer to Q6a is "YES," check ALL of the following that describe the measures the firm has in place to avoid commingling or cross-contamination:

Segregating of feeds  
 Feeding the system (Please describe): \_\_\_\_\_  
 Supplier assurance and routing procedures  
 Documentation/maintenance of segregating and feeding  
 Physical measures such as segregating, cleaning  
 Dedicated equipment used for prohibited materials  
 Prohibit containing prohibited material in bags in the firm's possession  
 Other (Please describe): \_\_\_\_\_

11. Please describe any additional safeguards the firm has in place to ensure that outgoing feeds or feed ingredients containing prohibited material are not shipped to ruminant feeders (If none, please enter "None")

FORM FDA 3179 (03/06) Page 2

Section 3 - COMPLETE this section ONLY if the firm is marked as: Q1a) Firm Type "Retailer"

12. Does the firm have a written procedure to:

Inspect incoming feed ingredients for adulteration or contamination  
 Conduct regular audits on the feed handling  
 Handle Return, Transport  
 All incoming transportation facility  
 Other (Please describe): \_\_\_\_\_

13. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

14. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

15. If the firm is a "YES" in Q12, are you taking corrective action to ensure that the feed is not used for ruminants?  
 Yes  No

16. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

17. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

18. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

19. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

20. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

21. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

22. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

23. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

24. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

25. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

26. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

27. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

28. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

29. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

30. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

31. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

32. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

33. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

34. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

35. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

36. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

37. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

38. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

39. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

40. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

41. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

42. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

43. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

44. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

45. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

46. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

47. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

48. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

49. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

50. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

51. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

52. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

53. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

54. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

55. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

56. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

57. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

58. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

59. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

60. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

61. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

62. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

63. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

64. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

65. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

66. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

67. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

68. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

69. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

70. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

71. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

72. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

73. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

74. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

75. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

76. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

77. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

78. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

79. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

80. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

81. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

82. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

83. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

84. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

85. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

86. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

87. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

88. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

89. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

90. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

91. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

92. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

93. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

94. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

95. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

96. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

97. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

98. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

99. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

100. Does the firm receive feeds or feed ingredients that are not labeled as animal feed?  
 Yes  No

FORM FDA 3179 (03/06) Page 3

Section 4 - SKIP this section when the firm is ONLY marked as: Q1a) Firm Type "Other" OR Q1a) Firm Type "Transporter (Inland)"

15. Are any incoming feeds or feed ingredients transported in bulk form?  
 Yes  No

16. Are any incoming feeds or feed ingredients transported in packaged form?  
 Yes  No

17. Does the firm utilize its own transportation vehicles for the delivery of any bulk incoming feeds or feed ingredients?  
 Yes  No

18. Does the firm utilize other than its own transportation vehicles for the delivery of any bulk incoming feeds or feed ingredients?  
 Yes  No

19. If "YES" in Q15 or Q16, do ALL inbound transporters provide written assurance that they utilize dedicated transport equipment OR utilize measures that adequately prevent commingling or cross-contamination with prohibited material?  
 Yes  No

20. Are any outgoing feeds or feed ingredients transported in bulk form?  
 No Outgoing Feed/Ingredients  
 Yes  No

21. Are any outgoing feeds or feed ingredients transported in packaged form?  
 No Outgoing Feed/Ingredients  
 Yes  No

22. Does the firm utilize its own transportation vehicles for the delivery of any outgoing bulk feeds or feed ingredients?  
 No Outgoing Feed/Ingredients  
 Yes  No

23. Does the firm utilize other than its own transportation vehicles for the delivery of any outgoing bulk feeds or feed ingredients?  
 No Outgoing Feed/Ingredients  
 Yes  No

24. If "YES" in Q20 or Q21, do ALL outbound transporters provide written assurance that they utilize dedicated transport equipment OR utilize clean-out measures that adequately prevent commingling or cross-contamination with prohibited material?  
 Yes  No

FORM FDA 3179 (03/06) Page 4

**Section 8 — Complete this section ONLY if the firm is marked as: Q1a) Firm Type = "Feeder of Ruminants"**

21. Are common feeds being fed the following?

a) Obtaining the supplier statement on feeds containing animal protein (AP)  Yes  No  No AP feeds on premises

b) Maintaining copies of labeling for feeds containing animal protein (AP) (Not including retail pet food for cats and dogs)  Yes  No  No AP feeds on premises

c) Maintaining copies of purchase invoices for feeds containing animal protein (Not including retail pet food for cats and dogs)  Yes  No  No AP feeds on premises

d) Feeding non-ruminant species (Not including cats and dogs)  Yes  No

e) Feeding non-ruminant species (Not including cats and dogs) feeds containing prohibited material  Yes  No  No PM feeds on premises

f) Feeding cats and/or dogs  Yes  No

---

**Section 8 — Complete for ALL Firm Types**

22. a) Check all conditions that were noted at the time of inspection:  Contaminating  Labeling  No Deviations noted  Recordkeeping  Feeding Ruminants Prohibited Material


b) If any deviations were noted above, describe the deviations, and the actions and commitments made to correct each deviation.

23. a) Are you attaching any descriptions, exhibits, records, labeling, reports or supplemental information?  Yes  No

FORM FDA 2019-03086 Page 6

## Summary

- ❑ Bovine Spongiform Encephalopathy (BSE) or “mad cow disease” had a substantial impact for the livestock industry in the UK and other countries.
- ❑ The outbreak was amplified by practices of feeding animal protein from infected cattle to other cattle.
- ❑ Multiple firewalls developed by the USDA and FDA have effectively prevented the spread of the disease.
- ❑ Critical safeguards helping prevent the spread of BSE were the FDA 1997 and 2008 Animal Feed Ban Regulations.
- ❑ Over 76,000 inspections have been performed since the 1997 feed ban, around 72% by State feed control officials.
- ❑ There is high compliance with the regulations as a result of education and voluntary compliance.



# END

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**OFFICE OF THE TEXAS STATE CHEMIST**  
Texas Feed and Fertilizer Control Service • Agriculture Analytical Service

