

Bovine spongiform encephalopathy ,Brazil

Information received on 07/12/2012 from Dr Figueiredo Marques Guilherme Henrique , Director, Departamento de Saúde Animal , Ministério da Agricultura, Pecuaria e Abastecimento , Brasilia, Brazil

Summary

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|---------------------------------------|--|
| Report type | Immediate notification |
| Date of start of the event | 18/12/2010 |
| Date of pre-confirmation of the event | 15/06/2012 |
| Report date | 07/12/2012 |
| Date submitted to OIE | 07/12/2012 |
| Reason for notification | First occurrence of a listed disease |
| Manifestation of disease | Sub-clinical infection |
| Causal agent | Prion responsible for bovine spongiform encephalopathy |
| Nature of diagnosis | Laboratory (advanced) |
| This event pertains to | the whole country |

New outbreaks

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|-----------------------------|---------------------------|
| Summary of outbreaks | Total outbreaks: 1 |
|-----------------------------|---------------------------|

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|--|---|--------------------------------|--------------------------------|------------------------------------|---|--------------------|
| Outbreak Location | <ul style="list-style-type: none"> PARANA (Sertanópolis) | | | | | |
| Total animals affected | <i>Species</i> | <i>Susceptible</i> | <i>Cases</i> | <i>Deaths</i> | <i>Destroyed</i> | <i>Slaughtered</i> |
| | Cattle | 148 | 1 | 1 | 0 | 0 |
| Outbreak statistics | <i>Species</i> | <i>Apparent morbidity rate</i> | <i>Apparent mortality rate</i> | <i>Apparent case fatality rate</i> | <i>Proportion susceptible animals lost*</i> | |
| | Cattle | 0.68% | 0.68% | 100.00% | 0.68% | |
| * Removed from the susceptible population through death, destruction and/or slaughter; | | | | | | |

Epidemiology

| | |
|--|--|
| Source of the outbreak(s) or origin of infection | <ul style="list-style-type: none"> Unknown or inconclusive |
| Epidemiological comments | <p>On 18 December 2010, the Official Veterinary Services (OVS) were informed by the owner of a holding in the municipality of Sertanópolis (State of Paraná) on a recumbent bovine showing limb stiffness which was detected during routine inspection. Next day, when the OVS were going to visit the holding, they were informed by the stockman that the animal was dead.</p> <p>The OVS went to the holding to collect information and samples for the diagnosis of the cause of the death. As it is an area where rabies is present in herbivores, samples were taken for the diagnosis of this disease and for differential diagnosis, as recommended by the national protocol. The animal was properly buried on site. The animal was a beef breeding cow almost 13 years old at the time of death, according to information obtained during the epidemiological investigations.</p> <p>According to regulations and routine procedures to be implemented in case of suspected neurological diseases, the sample was tested for rabies and it was negative. As it was an adult animal negative for rabies, the sample was sent for laboratory analysis within the surveillance system for bovine spongiform encephalopathy (BSE).</p> |

On 11 April 2011, a negative histopathological result for BSE was obtained in a laboratory accredited by the OVS. The sample was sent to the National Reference Laboratory, National Agricultural Laboratory (LANAGRO-PE), Recife, Pernambuco, for BSE diagnosis and it tested positive on 15 June 2012 by immunohistochemical test.

The delay between the two tests was caused by an incident occurred in one of the laboratories of the accredited network for the diagnosis of BSE. That led to overload the system and to prioritize the diagnosis of samples which met BSE-risk characteristics, as established by the OIE. The sample belonged to the group “fallen stock” and to the age group “over 9 years”, according to the Article 11.5.22 of the OIE Terrestrial Animal Health Code. This classification led to consider the sample as showing a low diagnosis priority level, which resulted in a longer than expected delay from histopathological to immunohistochemical tests.

According to the procedure manual on response to the occurrence of a BSE event in Brazil and as it is the first occurrence in the country, the sample was sent for confirmatory diagnosis to the OIE Reference Laboratory for this disease, Animal Health and Veterinary Laboratories Agency (AHVLA), Weybridge, United Kingdom. The sample tested positive in immunohistochemical test on 6 December 2012.

The epidemiological investigation shows that the animal’s death was not caused by BSE and suggests that it may be an atypical case of the disease occurring in the oldest animals. Information collected during the epidemiological investigation shows also that the animal was reared in an extensive system on grazing.

Note by the OIE: Brazil is still recognized by the OIE as having a negligible BSE risk in accordance with Chapter 11.5. of the OIE Terrestrial Animal Health Code.

Control measures

Measures applied

- No vaccination
- No treatment of affected animals

Measures to be applied

- No other measures

Diagnostic test results

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|--------------------------|---|--------------------------|------------------|---------------|
| Laboratory name and type | Animal Health Laboratory - IMA (National laboratory) | | | |
| Tests and results | <i>Species</i> | <i>Test</i> | <i>Test date</i> | <i>Result</i> |
| | Cattle | histological test | 11/04/2011 | Negative |
| Laboratory name and type | National Agricultural Laboratory (LANAGRO-PE) (National laboratory) | | | |
| Tests and results | <i>Species</i> | <i>Test</i> | <i>Test date</i> | <i>Result</i> |
| | Cattle | immunohistochemical test | 15/06/2012 | Positive |
| Laboratory name and type | Animal Health and Veterinary Laboratories Agency (AHVLA) (OIE's Reference Laboratory) | | | |
| Tests and results | <i>Species</i> | <i>Test</i> | <i>Test date</i> | <i>Result</i> |
| | Cattle | immunohistochemical test | 06/12/2012 | Positive |

Future Reporting

The event is continuing. Weekly follow-up reports will be submitted.