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FOOT AND MOUTH DISEASE

IN

ARGENTINA

(FMD FREE ZONE WITH VACCINATION)

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1. Argentina – An FMD outbreak in a recognised zone

1.1 Disease Report

The Argentinean authorities notified the OIE¹ on 2 September 2003 of the suspected clinical detection of pigs with foot lesions in a local abattoir in San Martin department (Province of Salta), located 10 km from the town of Tartagal and 40 km from the Bolivian border (Fig.1). San Martin department is located within the FMD free zone with vaccination where on-going surveillance and routine vaccination of cattle is carried out.



Fig.1. FMD outbreak in Argentina (FMD free zone with vaccination)

On 5 September, the Argentinean authorities notified the OIE² that the FMD serotype O had been confirmed by laboratory testing. The authorities

¹ OIE, (2003). OIE Alert Messages. Retrieved on 2 September 2003 from World Wide Web: <http://www.oie.int/Messages/030902ARG.htm>

² OIE, (2003). Alert Message, retrieved on 8 September 2003 from World Wide Web: <http://www.oie.int/Messages/030908ARG.htm>

estimated that the initial infection took place at least 30 days before the clinical diagnosis in pigs was made. It has been reported that this is an area that does not have production links with other regions and where the livestock density is low.

2. TRADE INFORMATION

2.1 Trade in live animals

Imports of live ruminants and pigs from Argentina to the EU are not permitted.

2.2 Trade in meat/meat products

2.2.1 Legal imports

The Border Inspection Posts (BIPs) returns database records 735 consignments of meat and meat products imported from Argentina between January and April 2003. Later figures have not yet been received centrally.

2.2.2 Illegal imports

Personal imports from Argentina are not allowed. Illegal animal products seizure (ILAPS) database records only one confiscation of meat products (3.5 kg), and only one confiscation of dairy products (2 kg) between 1 January 2003 and 8 September 2003.

3. Restrictions in place

3.1 Argentina

Subsequent to the clinical suspicion of the disease in pigs on 28 August 2003, a number of preliminary FMD control measures were put in place. They included epidemiological investigation, closure of the infected abattoir and preventive closure of local abattoirs in the affected area, clinical and sero-surveillance, ring vaccination and revaccination of all susceptible species within a 10km radius from the abattoir, prohibition of animal movements in the departments of San Martín and Rivadavia).

Comment: On 22 May 2003, the OIE reviewed an application from Argentina for the north of the country to be recognised as “free from foot and mouth disease with vaccination”. The OIE decided that Argentina's application would be acceptable if the country provides documentary evidence that there has been no change in the epidemiological status of the country between 22 May 2003 and 7 July 2003.

OIE recognition of the zone of Argentina situated south of the 42nd parallel (southern Patagonia) as free from foot and mouth disease without vaccination remains unchanged. This zone is at a considerable distance (over 2,000km) from the affected areas in the north of the country.

3.2 European legislation

3.2.1 Summary

Import of meat of FMD susceptible species from certain parts of Argentina are subject to EU rules³ (Fig.2).



Fig.2. EU rules applicable to Argentina (before 9 September 2003)

³ 93/402/EC, as amended

EU rules⁴ do not allow the importation of live ruminants and pigs, or imports of pig meat from Argentina. However, trade in bovine, ovine and caprine meat and meat products is allowed from the Argentinean recognised FMD free zones (with, or without vaccination). For detailed EU rules see Annex 1.

Action has been taken to prevent exports of meat from animals from the areas affected by the current outbreak and adjacent areas. Due to recent outbreaks of FMD in Paraguay close to the Argentinean border, the EU⁵ had already suspended imports from two departments in the border area (Ramon Lista and Rivadavia) with effect from 1 August 2003. Following this outbreak in Argentina, the EU is in the process of suspending exports from additional areas at risk, including the departments of Jose de San Martin, Rivadavia, Oran, Iruya and Santa Victoria (Salta Province), and the department of Ramon Lista (Formosa province).

On 8 September 2003, a Declaration under POAO was issued by the DEFRA's IAHD to prohibit imports from the areas above. All Border Inspection Posts (BIPs) were notified of these restrictions.

4. Hazard Assessment for the UK

Given the current outbreak of FMD in the recognised Argentinean FMD zone with vaccination, the Veterinary Directorate consider at the present with regard to:

4.1 Trade in live animals

- The hazard to UK animal health is negligible from legal trade as no imports of live ruminants and pigs are allowed from Argentina.

4.2 Trade in meat and meat products

4.2.1 FMD free zones without vaccination (below 42nd parallel – AR3)

- The hazard to UK animal health is negligible from legal trade in meat and meat products as the outbreak appeared in the north of Argentina.

4.2.2 FMD free zones with vaccination (AR1)

- The hazard to UK animal health remains low from legal trade in meat and meat products from the non-affected northern parts of Argentina. Cattle in this area are

⁴ 93/402/EC, as amended

⁵ 93/402/EC, as amended by 2003/576/EC

required to be vaccinated against FMD. This outbreak is in pigs and exports of pigs and pigmeat are not permitted. The UK and EU have suspended imports of meat and meat products from the affected and neighbouring Departments.

- This situation will continue to be monitored and re-assessed closely.

4.2.3 Illegal trade

- There is always a background hazard to animal health from illegal trade from infected countries. The scale of this hazard is difficult to estimate. The hazard from personal imports (illegal trade) from Argentina appears to be negligible given the low number of recorded confiscations for the past eight months.
- However, should the FMD situation in the South American region continue to deteriorate, that may warrant increased level of monitoring of travellers and trade arriving in the UK from the countries in this region.

5. Conclusions

Information received to date indicates that the outbreak is confined to a limited area in the north of Argentina, close to the Bolivian border, affecting pigs only. Exports of pigs and pigmeat to the EU are not permitted. No outbreaks have been reported in cattle. Disease control measures were implemented quickly following a suspected clinical diagnosis. However, it is of concern that it took approximately a month for the Argentinean FMD control system to detect the disease.

The FMD serotype O virus was also implicated in most of the recent outbreaks of FMD in Paraguay and Bolivia. This outbreak in Argentina would indicate that the FMD situation in this region of South America is deteriorating.

Safe-guard measures have been taken to prevent exports from the FMD affected and at-risk areas of Argentina. The Veterinary Directorate consider that the overall hazard to UK animal health from imports from the FMD free zones with vaccination remains negligible. The hazard from potential illegal imports has not significantly increased, especially when considered in the context of the ongoing risk from countries where the disease is endemic. However, deterioration in the FMD situation in this region of the South America would be of concern as it could be an early warning sign that outbreaks may occur in the areas allowed to export meat and meat products to the UK.

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Annex 1. Current EU rules - Argentina

1.1 Trade in meat/meat products

1.1.1 FMD free zones with vaccination

According to EU rules⁶ these zones are designated as AR-1 (FMD free zones with vaccination).

EU rules allow importation of products destined for:

- Human consumption - deboned bovine meat only
- Pet food production - bovine offal only

A. Human consumption

Deboned bovine meat for human consumption:

- I. Must be obtained from cattle carcasses slaughtered after 31/01/02, with the exception of cattle that come from:
 - a) La Pampa and Santiago Del Estero departments for which the slaughter date is after 08/03/02, and
 - b) Cordoba department for which the slaughter date is after 26/03/02.
- II. Is subject to the model certificate A requirements. That is, cattle must:
 - a) Come from an approved territory where they have been:
 - residents for minimum of three months,
 - subjected to FMD vaccination carried out under official control,
 - b) Come from FMD free holdings:
 - not under restriction, or had no outbreak of FMD for the past 60 days,
 - within a 25km FMD free radius for the past 30 days,
 - where they have been residents for 40 days prior to slaughter,
 - c) Be sent direct to slaughter only. No mixing with any other cattle that do not comply with EU rules is allowed during the transport. Cleaning and disinfection of transport vehicles must be carried out before slaughter,
 - d) Be slaughtered in EU approved establishments not subjected to any restrictions and where:

⁶ 93/402/EC as amended

- ante-mortem inspection for FMD is carried out 24 hours before slaughter,
- carcasses:
 - have been be matured at $>+2^{\circ}\text{C}/24$ hours,
 - have pH < 6.0 after maturation and before boning,

B. Pet food production

Bovine offal for pet food:

- I. Is allowed subject to the model certificate F requirements. That is, bovine offal must be obtained from cattle that:
 - a) Come from an approved territory where they have been:
 - residents for minimum of three months,
 - subjected to FMD vaccination carried out under official control,
 - b) Come from FMD free holdings:
 - not under restriction, or had no outbreak of FMD for the past 60 days,
 - within a 25km FMD free radius for the past 30 days,
 - where they have been residents for 40 days prior to slaughter,
 - d) Have been slaughtered in EU approved establishments not subjected to any restrictions and where:
 - ante-mortem inspection for FMD is carried out 24 hours before slaughter,
 - offal has matured at $>+2^{\circ}\text{C}$ for minimum of three hours, or minimum of 24 hours in a case of masseter muscle.

1.1.2 FMD free zones without vaccination

According to EU rules⁷ these zones are designated as AR-3 (FMD free zones without vaccination). Bovine products must be obtained from animal carcasses slaughtered after 01/03/02.

The EU rules (model certificate B apply) allow import of the following products:

- Bovine, ovine and caprine fresh meat only,
- Bovine offal for human consumption only,
- Bovine offal (i.e. hearts, livers, masseter muscle, tongues) destined for heat-treated meat products industry only,
- Bovine offal destined for pet food production,

⁷ 93/402/EC as amended

- Ovine offal for human consumption,

According to the model certificate B, animals must:

- Be born, reared and slaughtered in the FMD free zone without vaccination,
- Come from FMD free holdings:
 - not under restriction, or had no outbreak of FMD for the past 30 days,
 - within a 10km FMD free radius for the past 30 days,
 - which in case of sheep and goat meat must be free from ovine/caprine brucellosis for the past six weeks,
- Be sent direct to slaughter only. No mixing with any other cattle that do not comply with EU rules is allowed during the transport. Cleaning and disinfection of transport vehicles must be carried out before slaughter,
- Be slaughtered in EU approved establishments not subjected to any restrictions where ante-mortem inspection for FMD is carried out 24 hours before slaughter,

Annex 2. FMD fact sheet

2.1 The nature of the disease

2.1.1 What is it?

Foot and Mouth Disease (FMD) is a highly infectious viral disease in which fever is followed by the development of vesicles or blisters - chiefly in the mouth or on the feet. There are 7 main types of virus, which produce similar symptoms and which can only be differentiated in the laboratory.

2.1.2 How is it spread?

FMD can spread by direct or indirect contact with infected animals. Infected animals begin by excreting the virus a few days before signs of the disease develop. Pigs in particular produce large numbers of virus particles.

The disease is spread mechanically by the movement of animals, persons, vehicles and other things, which have been contaminated by the virus. Airborne spread of the disease can also take place. The prevailing meteorological conditions and local topography determine the distance that the disease can travel and this may be considerable. For example, circumstantial evidence strongly suggests that the outbreak on the Isle of Wight in 1981 resulted from the airborne spread of the virus from Brittany in northern France.

Meat from the carcass of animals infected with FMD at the time of slaughter can transmit the virus. In the past outbreaks of the disease have been linked with the importation of infected meat and meat products.

2.1.3 Worldwide spread

FMD is endemic in parts of Asia, Africa, the Middle East and South America, with sporadic outbreaks in disease-free areas.

2.1.4 Can people contract the disease?

Advice from the Department of Health is that it is very rare. There has only been one recorded case of FMD in a human being in Great Britain in 1966. The general effects of the disease in that case were similar to influenza with some blisters. It is a mild short lived, self-limiting disease.

There is however a human condition called Hand, Foot and Mouth disease, which is unrelated. It will not affect animals. If you are concerned you should contact your GP.

2.1.5 Which animals are susceptible?

Cattle, sheep, pigs and goats are susceptible and some wild animal such as hedgehogs, coypu, rats, deer, camels, and zoo animals including elephants.

2.1.6 What are the signs?

Vesicles (blisters) in the mouth or on the feet and other signs which vary somewhat but may be:

CATTLE - Fever, dullness, off feed, shivering, reduced milk yield and sore teats in milking stock, slivering, tenderness of feet or lameness.

SHEEP AND GOATS - Fever, lameness, stiff legged walk, off colour, tendency to lie down, increased lamb mortality.

PIGS - Fever, lameness, dullness, off feed.

2.1.7 What kinds of virus are there?

There are 7 main types: O, A, C, SAT.1, SAT.2, SAT.3, and Asia 1. Within each type there are many sub-types, e.g. O1 and A22. The average incubation period is 3-8 days but it can be shorter or may extend to 14 days or longer. It has been confirmed that the virus responsible for the present outbreak is the highly virulent pan-Asiatic O type. When animals recover from infection by one type of virus they have little or no protection against attacks by any one of the others.

2.1.8 How is the virus destroyed?

It can be destroyed by heat, low humidity, or certain disinfectants, but it may remain active for a varying time in a suitable medium such as the frozen or chilled carcase of an infected animal and on contaminated objects.

2.1.9 What are the effects of FMD?

The disease is rarely fatal, except in the case of very young animals, which may die without showing any symptoms.

Affected animals lose condition and secondary bacterial infections may prolong convalescence. The most serious effects of the disease however are seen in dairy cattle. Loss of milk yield, abortion, sterility, chronic mastitis, and chronic lameness are commonplace.

2.1.10 Can FMD be cured?

There is no cure. It usually runs its course in 2 or 3 weeks after which the great majority of animals recover naturally. The justification of the slaughter policy is that widespread disease throughout the country would be economically disastrous due to the effects already noted above.

2.2 Disease Control Measures

2.2.1 How is the disease controlled?

The preferred method of control is a policy of slaughter of infected animals and those animals exposed to infection. Movement restrictions are also put into place to help to contain the disease.

The European Union has a policy of non-vaccination except in extreme circumstances. This is because there are trade implications to vaccinating which would make this option unacceptable. However EU countries including the UK have access to an international bank of FMD vaccine.