

Original English
September 2000

**REPORT OF THE MEETING OF THE OIE FOOT AND MOUTH DISEASE
AND OTHER EPIZOOTICS COMMISSION**

Paris, 26 - 28 September 2000

A meeting of the OIE Foot and Mouth Disease (FMD) and Other Epizootics Commission was held at the OIE headquarters from 26 to 28 September 2000. The agenda and list of participants are given in Appendices I and II respectively.

The participants were welcomed by the Director General of the OIE, Dr Jean Blancou who congratulated the members of the Commission on their election by the International Committee at the General Session in May. The meeting was chaired by the President of the Commission, Dr Gavin R. Thomson.

1. Future of the Commission

Discussion was held on the future of the Commission in relation to recommendations contained in the Third Strategic Plan (2001-2005) and comments of the Regional Commission for Europe. In addition, Dr Bernard Vallat (Director General Elect of the OIE) also addressed the Commission on aspects relating to the future of the Commission. The following broad conclusions were reached:

- As recommended in the Third Strategic Plan and by Dr Vallat, the Commission concurred that the fundamental role of the FMD Commission should be to provide scientific reference for disease control and surveillance methodology.
- This should, in the future, involve broadening the scope of the Commission: in particular to include epidemiology and disease information as outlined in the Third Strategic Plan. This will probably be achieved by incorporating members of the present Working Group on Informatics and Epidemiology into the FMD Commission on an ad hoc basis¹.

¹ Prof. V. Caporale was requested by the Commission to draw up a concept note on how greater focus on epidemiology and disease information could be achieved by the Commission. This document will be discussed at the January 2001 meeting of the Commission

- For the time being (i.e. until the adoption of the Work Programme for the years 2001-2005 by the International Committee during its 69th General Session of May 2001), the Commission should continue to assess country applications for freedom from rinderpest, FMD and contagious bovine pleuropneumonia. Thereafter, it is likely that independent experts (Ad hoc Group) will assist the FMD Commission in perusing and evaluating the applications of Member Countries for freedom from disease, i.e. their sanitary status.
- The Commission will need to be more proactive in identifying emerging diseases and technical issues likely to confront the OIE. To achieve this, some time will be set aside at each meeting of the Commission to discuss such aspects and also to track epizootics.
- The need for a more comprehensive, structured and integrated approach to disease surveillance and monitoring was identified as a priority for the Commission for the next three years. In particular, an effort will be made to provide generic guidance on this subject either by providing recommendations for expanding the present ‘Surveillance and Monitoring of Animal Health’ chapter (Chapter 1.3.5) in the *International Animal Health Code* (the *Code*) or some other alternative publication. Care will be taken to ensure that the generic guidelines are complemented by the supporting guidelines (appendices) for individual *Code* chapters that Member Countries can use to seek recognition for freedom of some diseases, either on a country-wide basis or for particular zones.
- Dr Vallat requested in-puts from the Commission for the Working Programme that he will present to the International Committee during the 69th General Session in May 2001. The Commission was also requested to provide suggestions as to how implementation of the Third Strategic Plan could be effected.
- The position of observers on the FMD Commission was discussed and the conclusion was that they provide a valuable contribution. Due to the broadening of the activities of the Commission, a wider diversity of observers will probably be needed in the future. The selection and time of attendance of observers will depend on the expertise required for particular problems under discussion. The elected members of the Commission are responsible for the decisions of the Commission.
- In view of the expanded mandate that the Commission is expected to receive, it is possible that a change in the name of the Commission would be appropriate. A decision on this matter was held over to a later date.

2. Report on foot and mouth disease in Greece, Turkey and other countries

Outbreaks of FMD in Greece in July due to Asia 1 serotype were predominantly restricted to the Evros Delta, on the border with Turkey. Limited spread of the disease occurred within the Prefecture of Evros, and two further outbreaks were reported in the Prefecture of Xanthi, linked epidemiologically to the Evros outbreaks. Although there were no reported outbreaks of FMD in European Turkey (Thrace), it is likely that Turkey was the origin of the Greek outbreaks as it had previously been shown that the nucleotide sequence of the Greek Asia 1 strain was almost identical to that of Asia 1 isolates from Asiatic Turkey (Anatolia).

Outbreaks of FMD due to serotypes O, Asia 1 and two distinct strains of A (referred to as A Iran 1996 and A Iran 1999) have occurred this year in Asiatic Turkey. The European Union (EU) agreed to supply trivalent vaccine containing serotypes O, Asia 1 and A (strain A₂₂) for use in Turkish Thrace.

An FAO²/EU/OIE mission visited the Caucasian region in July 2000, and concluded that FMD is now endemic in Armenia, Azerbaijan and Georgia. Serotypes O, A (A Iran 1996) and Asia 1 have been isolated from samples submitted to the ARRIAH³, Vladimir (Russia). A buffer zone supported by EU (USD 680,000 over two years) was established since 1999 on the southern border areas of the region using vaccine supplied by ARRIAH Vladimir. Locally produced FMD vaccine (laminated) and other Russian vaccines are also used in the region. The mission concluded that the buffer zone has had a limited effect on controlling the disease, and alternative strategy and measures should be considered to prevent spread from Caucasus into Russia. Russia is also at risk due to the endemic situation of FMD in Kazakhstan, and no buffer exists along the approximately 7,500 km border between Russia and Kazakhstan.

² FAO: Food and Agriculture Organization of the United Nations

³ ARRIAH: All-Russian Research Institute for Animal Health

3. Application of Japan for recognition of restored status with respect to foot and mouth disease

The Commission considered the application from Japan to restore foot and mouth disease free status. They were joined by Drs Katsuaki Sugiura, Junsuke Shirai, and Kazuhisa Hoshino, from Japan. The Japanese delegation presented a review of the outbreak, their stamping out programme and the results of their monitoring and surveillance programme. Based on the information supplied, the Commission returned Japan to the list of FMD free countries.

4. Surveillance standards for foot and mouth disease

In the light of the necessity to propose changes to the *Code* chapter on FMD (Chapter 2.1.1) to accommodate the problem of distinguishing between disease and infection as well as those resulting from recent epidemiological observations, it was decided that Dr P. Kitching would:

- (i) - provide proposals for amendments to the FMD *Code* chapter (Chapter 2.1.1),
 - modify the existing OIE document on ‘Surveillance Standards for FMD’ so as to provide a more general supporting guideline (appendix) to Chapter 2.1.1 that would not only provide guidelines on surveillance and monitoring but also explain briefly how newly available laboratory tests should be used to identify infection where disease may not be apparent;
- (ii) provide improved recommendations for countries free of FMD to import straw and forage from infected countries or zones and propose amendments to Article 2.1.1.28 of the *Code* if appropriate.

These will be available for ratification by the Commission in January 2001 and sent to Member Countries for review before 69th General Session.

5. Rabies

A proposal referred by the Code Commission to exclude Australian bat lyssavirus from the provisions of the rabies chapter in the *Code* (Chapter 2.2.5), as is the case for European bat lyssaviruses, was considered together with comments from three rabies experts. This issue is complicated by differences in the approach of the OIE and the WHO⁴ to rabies.

The Commission proposes that to accommodate the problem of European and Australian bat lyssaviruses (genotypes 5, 6 and 7) as well as the other ‘rabies-related’ viruses (genotypes 2, 3 and 4), the Chapter 2.2.5 should incorporate the following introductory statement:

‘For the purposes of trade in animals and animal products, rabies is considered to be a neurological disease of mammals caused by genotype 1/serotype 1 lyssaviruses of the family Rhabdoviridae’.

6. Applications for recognition of freedom from rinderpest

The Delegate from Barbados had submitted the request to be on the list of countries historically free of rinderpest too late to be included in the list approved by the International Committee in May 2000. The Commission reviewed the information supplied and made the decision that Barbados met the requirement to be on the list of historically free countries. The Central Bureau will write a letter to the Delegate answering his question on the definition of rinderpest surveillance.

The Commission reviewed application from other countries wishing to be declared free of rinderpest infection. Those that were approved were submitted to the Member Countries for comment.

⁴ WHO: World Health Organization (WHO)

The Commission considered the application from Myanmar to be declared rinderpest disease free; they were not requesting to be declared free of infection as they had used vaccine within the last 10 years. Based on the material submitted, the Commission concluded that Myanmar was free of rinderpest disease

7. Applications for freedom from foot and mouth disease

The Commission reviewed application from countries wishing to be declared free of FMD. Countries that were approved were submitted to the Member Countries for comment.

8. Bovine spongiform encephalopathy questionnaire

Modifications to the questionnaire that was not adopted at the 68th General Session were considered in the light of deliberations of the Ad hoc Group on bovine spongiform encephalopathy and comments received from Member Countries.

Dr Thomson was requested to collate the above and provide the Central Bureau with an up-dated version of the questionnaire before January 2001. The document will then be circulated to members of the Commission so that it can be finalised at the next (January) meeting. It will then be re-submitted to the International Committee in May 2001.

9. Meeting with the International Animal Health Code Commission

The minutes of this part of the meeting are contained in the International Animal Health Code Commission report but the following decisions have implications for the activities of the FMD Commission:

- The FMD and other Epizootics, the International Animal Health Code and the Fish Diseases Commissions will collaborate on the continuing initiative to provide a rational system for animal disease categorisation. In particular the FMD Commission will start to develop criteria and working examples for such categorisation. A document will be prepared for consideration by the three Commissions in January 2001.
- A list of subjects that require definition (e.g. surveillance and buffer zones) will be provided to the FMD Commission by the International Animal Health Code Commission.
- A proposal was discussed to change the schedule of the FMD and International Animal Health Code Commissions. The proposal was to meet in January, July and December in 2001 and July and December in future years. This would give Member Countries more time before the General Session of the International Committee to comment on material submitted to them. This will be discussed again in January.

10. Report of an OIE mission to Argentina

Prof. U. Kihm (former President of the FMD Commission) reported on the OIE Mission to Argentina undertaken to investigate the FMD incident recently reported by Delegate for Argentina. The Mission was organised and hosted by Prof. Emilio Gimeno, Coordinator for the OIE Regional Representation for the Americas. The other members were Dr W.G. Sterritt (also former President of the FMD Commission) and Dr Victor Saraiva, Epidemiologist, Panaftosa⁵.

Their recommendation that recognition of Argentina's freedom from FMD without vaccination should not be rescinded by the OIE was accepted by the Commission. However, additional epidemiological data relating to the incident should continue to be submitted to the OIE. The complete report is included as [Appendix III](#).

⁵ Panaftosa: Pan American Foot and Mouth Disease Centre

11. Report on the Global Rinderpest Eradication Programme

Dr M. Rweyemamu, reviewed this programme. The programme supports the validity of the existing OIE pathway and the use of this pathway will continue to be encouraged and supported for national use. All use of rinderpest vaccine for immunisation programmes should cease by the end of 2002 in preparation for a declaration of global provisional freedom from disease by 2003.

The Expert Consultation set out milestones for Global Rinderpest Eradication Programme (GREP) in the drive towards a world without rinderpest:

- 2002 cessation of routine rinderpest vaccination programmes
- 2003 declaration of global provisional freedom from rinderpest
- 2006 declaration of global freedom from rinderpest disease
- 2008 declaration of global freedom from rinderpest infection
- 2010 declaration of global rinderpest eradication

A global review group composed of two members from OIE, two from FAO, one from WHO and one from IAEA⁶ will be formed to certify the process of the global rinderpest pathway to freedom from infection. This programme review group should be established by 2003.

12. Speaker for the 69th General Session

Dr Ray Bradley (United Kingdom) accepted an invitation from the Commission to give a presentation to the next General Session of the OIE on bovine spongiform encephalopathy.

13. Reconfirmation of foot and mouth disease status

The Commission reminded Delegates of Member Countries which are recognised as having some OIE FMD free status that they must reconfirm by letter to the OIE Central Bureau by November 2000, that their status has not changed and the criteria by which this status was recognised remains the same.

14. Republic of Korea foot and mouth disease surveillance programme

An outline of the Republic of Korea FMD surveillance programme was received for comment from the Delegate. The Commission appreciated receiving the information but had no specific comments.

15. Date of the next Commission meeting

The date for the next meeting was set for the week of 21 January 2001.

.../Appendices

⁶ IAEA: International Atomic Energy Agency

**REPORT OF THE MEETING OF THE OIE FOOT AND MOUTH DISEASE
AND OTHER EPIZOOTICS COMMISSION**

Paris, 26 - 28 September 2000

Agenda

1. Future of the Commission
 2. Report on foot and mouth disease in Greece, Turkey and CIS countries
 3. Application of Japan for recognition of restored status with respect to foot and mouth disease
 4. Surveillance standards for foot and mouth disease
 5. Rabies
 6. Applications for recognition of freedom from rinderpest
 7. Applications for freedom from foot and mouth disease
 8. Bovine spongiform encephalopathy questionnaire
 9. Meeting with the International Animal Health Code Commission
 10. Report of the OIE visitation to Argentina
 11. Report on the Global Rinderpest Eradication Programme (GREP)
 12. Speaker for the 69th General Session
 13. Reconfirmation of foot and mouth disease status
 14. Republic of Korea FMD Surveillance Programme
 15. Date of the next FMD Commission meeting
-

**REPORT OF THE MEETING OF THE OIE FOOT AND MOUTH DISEASE
AND OTHER EPIZOOTICS COMMISSION**

Paris, 26 - 28 September 2000

List of Participants

MEMBERS

Dr G.R. Thomson (President)
Director of Onderstepoort Veterinary Institute
Agricultural Research Council
Private Bag X6
Onderstepoort 0110
SOUTH AFRICA
Tel: (27-12) 529 9101
Fax: (27-12) 529 9501
E-mail: gavin@moon.ovri.ac.za

Prof. V. Caporale (Vice-President)
Director
Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale"
Via Campo Boario
64100 Teramo
ITALY
Tel: (39.861) 332279 / 3321
Fax: (39.861) 332251
E-mail: caporale@izs.it

Dr E. Correa Melo (Secretary General)
Director Foot and Mouth Disease
Coordinator
Centro Panamericano de Fiebre Aftosa
Caixa Postal 589
20001-970 Rio de Janeiro
BRAZIL
Tel: (55-21) 671 3128
Fax: (55-21) 671 2387
E-mail: ecorrea@panaftosa.ops-oms.org

OTHER PARTICIPANTS

Dr R.P. Kitching
Head - World Reference Laboratory for FMD
Institute for Animal Health, Pirbright Laboratory
Ash Road, Pirbright, Woking Surrey GU24 0NF
UNITED KINGDOM
Tel: (44-1-483) 232 441
Fax: (44-1-483) 232 448
E-mail: paul.kitching@bbsrc.ac.uk

Dr M.M. Rweyemamu
Head, Infectious Diseases Group
Animal Production & Health Division
FAO
Via delle Terme di Caracalla
00100 Rome
ITALY
Tel: (39) 06 570 56772
Fax: (39) 06 570 53023
E-mail: mark.rweyemamu@fao.org

Dr Y. Leforban
Secretary of the European Commission for the Control of Foot and Mouth Disease
FAO
Via delle Terme di Caracalla
00100 Rome, ITALY
Tel: (39) 06 570 55528
Fax: (39) 06 570 55749
E-mail: yves.leforban@fao.org

OIE CENTRAL BUREAU

Dr J. Blancou
Director General
12 rue de Prony
75017 Paris
FRANCE
Tel: 33 - (0)1 44 15 18 88
Fax: 33 - (0)1 42 67 09 87
E-mail: [oie@oie.int](mailto:bie@oie.int)

Dr J. Pearson
Head, Scientific and Technical Department
E-mail: je.pearson@oie.int

Dr Fernando Crespo León
Chargé de mission, Scientific and Technical Dept
email: f.crespoleon@oie.int

**REPORT OF AN OIE MISSION
FOR THE EVALUATION OF THE FOOT AND MOUTH DISEASE SITUATION IN ARGENTINA
22 - 27 September 2000**

INTRODUCTION

- The mission was established to clarify the foot and mouth disease (FMD) situation in Argentina following the detection of illegally imported cattle in the north-eastern part of the country and the subsequent discovery of anti-FMD titres in both the imported and domestic in-contact cattle. A24 virus was subsequently isolated from eosophageal fluid collected from one of the illegally imported animals.
- The mission was organised and hosted by Prof. Emilio Gimeno, Coordinator for the OIE Regional Representation for the Americas.
- The mission team consisted of:
 - Prof. Dr Ueli Kihm, Director of the Federal Veterinary Office and Delegate to the OIE for Switzerland
 - Dr Victor Saraiva, Epidemiologist, Panaftosa and
 - Dr William Sterritt, Animal Health Consultant.
- The mission Terms of Reference were the following:
 - 1 To evaluate the field situation in north-eastern Argentina regarding freedom from FMD.
 2. To evaluate the surveillance systems and measures taken at the border with Paraguay.
 3. To make proposals to the OIE FMD and Other Epizootics Commission regarding the classification of Argentina as an FMD free country without vaccination.
- The itinerary of the mission and the list of contacts made can be found as annexes to this report.
- The mission's findings are reported below according to the following headings:
 1. Summary of Events
 2. Outbreak Information and Animal Health Officials Response
 3. Surveillance Plan and Diagnostic Tests
 4. Recommendations
- The mission team members are grateful for the efforts of Prof. Gimeno for organising the mission and to the members of the Argentine Animal Health Service (SENASA), for their openness and complete cooperation during the team's investigation.

1. SUMMARY OF EVENTS

In reacting to unofficial reports of clinical vesicular disease immediately across the Paraguayan border to the north, Argentinian animal health officials increased surveillance for FMD along its border with Paraguay. In doing so, they discovered on 2 August 2000 the existence of 10 illegally imported steers, estimated to be three years old, in a herd on a community farm in the community of Clorinda in the Province of Formosa. Investigation revealed the steers probably entered Argentina from Paraguay on about 22 July. None of the 26 owners who kept cattle on the premises, known as a 'comunero', would admit ownership.

Protocols exist that prescribe actions to be taken when illegally imported livestock are detected and these were followed. They include the mandatory slaughter of the animals with no compensation, and the collection of blood and probang samples from each of the imported animals. Domestic in-contact animals are also blood tested.

On 3 August, 4 of the 10 steers were reported to have positive VIAA⁷ and EITB⁸ titres, as were 8 of 82 cattle that had direct contact with the steers. Upon being made aware of these findings, SENASA ordered the slaughter of all in-contact animals, as well as 1308 bovines, 10 goats, 35 sheep and 9 hogs with indirect contact. Investigations of livestock shipments made during the period also indicated 13 consignments of cattle, all of which were all traced and tested. Three VIAA and EITB reactors were identified among 4 bulls shipped to a premises in the Corrientes province with the forward transport of 2 of these bulls (including 1 reactor) to another premises in the Entre Rios Province.

Based on the serological results available at that time, SENASA officials ordered the slaughter of 1362 in-contact animals on the Formosa premises, 1546 in-contact cattle on the Corrientes premises and 709 in-contact cattle on the Entre Rios premises. Other measures, including extensive movement controls, were also implemented. These included a country-wide ban on the movement of any susceptible species, except directly to slaughter, a ban that remained in effect for over 30 days.

The virus isolation from the probang sample was reported on 12 August, well after the decision to slaughter these animals was taken.

2. OUTBREAK INFORMATION AND REGULATORY RESPONSE

2.1. Observations

- 2.1.1. At no time was clinical evidence of the disease or spread of the virus definitely demonstrated.
- 2.1.2. Upon being made aware of the situation, SENASA officials reacted thoroughly, quickly and according to established protocols. The response was transparent even though it indicated a breach in preventive measures espoused by SENASA.
- 2.1.3. From the information provided, it could not be proven that exposure to FMD virus carried by the illegal imports induced the titres observed in the domestic in-contact animals. In fact, the short time between the apparent date of entry of the imports and blood sample collection from the in-contacts (12-14 days) would suggest that the titres observed in the in-contacts were induced by a previous exposure. The picture is confused, however by the repeated vaccinations experienced by some of the in-contact reactors.
- 2.1.4. Although strongly implicated by the geography of the region, cultural practices and a favorable premium for Argentine cattle, Paraguay could not be proven to be the country of origin of the imported animals.
- 2.1.5. The area of Formosa province adjacent to the Paraguay border must be considered as a permanent high risk area for the undetected movement of people, livestock and products across an international border. The Pilcomayo River, which separates the two countries, presents no significant obstruction to cross-border movements. In fact, historic, cultural, social and economic realities tend to promote this type of exchange. SENASA officials outlined plans to put this area under increased and constant surveillance and control.

⁷ VIAA: virus infection associated antigen

⁸ EITB: Enzyme-linked immunoelectrotransfer blot

- 2.1.6. The ‘comunero’ on which the illegal imports were identified, and premises like it, are used commonly as gathering and distribution points for livestock.
- 2.1.7. In response to the event, SENASA directed the necessary resources to the area and involved the local community in all actions taken. However, close ties with local Paraguayan colleagues during this time was not apparent.
- 2.1.8. All stamping-out activities preceded the isolation of the virus from the probang sample. Regulatory actions were all based on serological evidence.
- 2.1.9. The nation-wide ban on livestock movement indicated strong legislative authority.
- 2.1.10. The extensive implementation of stamping-out measures in the absence of clinical disease demonstrated SENASA’s strong response to this incident.

2.2. Conclusions

- 2.2.1. The mission team concludes that, in retrospect, viral activity in this incident was unlikely. However, in the face of the information available to it at the time that response was required, the team finds SENASA’s regulatory actions to be justifiable.
- 2.2.2. Evidence for an association between the illegal entry of the 10 cattle and the serological findings in domestic in-contact animals is circumstantial at best.
- 2.2.3. SENASA’s investigations of potential routes of dissemination of the virus from the original premises was thorough and complete.
- 2.2.4. The real and constant threat of unauthorised movements across the international border in Formosa province indicates the necessity for a very close and complete working relationship with Paraguayan animal health authorities for risk management purposes. The key to continued progress against FMD in the region lies in the continued cooperation and collaboration prescribed in the Cuenca del Plata Agreement.

3.. SURVEILLANCE PLAN AND DIAGNOSTIC TESTS

3.1. Observations

- 3.1.1. The system in place proved to be very efficient in tracing back the animals from the initial occurrence and the identification of herds at risk.
- 3.1.2. According to the data provided, serology carried out after tracing the animals was not conducted in a way to guarantee, with statistical validity, the absence of viral activity. Large numbers of sera were tested but the results were not presented in such a way that allows the absence of viral activity to be demonstrated and should be linked by date to events.
- 3.1.3. Similarly, surveillance conducted after the completion of stamping-out activities (‘post-outbreak’ surveillance) was not organised in a fashion to demonstrate conclusively that all traces of infection had been removed.

3.2. Conclusions

- 3.2.1 There was insufficient coordination among regulatory officials and laboratory scientists in interpreting the significance of laboratory findings. This collaboration would seem particularly important as the presence of vaccine titres was confusing the epidemiological picture.

3.2.2. Not all serological tests used were the most sensitive ones for detecting viral activity. VIA antibody testing is rather insensitive and should be replaced by ELISA⁹ antibody testing in nonvaccinated young livestock.

3.2.3. Some samples from in-contact animals may have been taken before the time required to develop antibodies post-exposure. There is a need to provide dates of sampling after slaughtering of in-contact animals in the ‘comunero’ farm in Formosa, at the Rincón del Socorro in Mercedes, at La Centella, in Entre Ríos, and in all neighboring and surveillance zones.

4. RECOMMENDATIONS

- 4.1. The mission team recommends that SENASA approach the OIE with documented evidence that viral activity in Formosa, Corrientes, and Entre Ríos is absent. SENASA is encouraged to include in its submission, information to OIE and its members concerning all the circumstances that make this situation unique and outside the classical epidemiological situation that an incursion of FMD generally provides.
- 4.2. It is recommended that the FMD and Other Epizootics Commission not rescind official recognition of FMD freedom without vaccination. In effect, SENASA reacted strongly in a thorough and precautionary manner to an epidemiological scenario in which the possibility of viral activity was, in retrospect, slim.
- 4.3. Considering the trans-border characteristics of FMD transmission from intense trade in live animals and animal products, it is recommended that regional cooperation on the political and technical level be strengthened, through the regional agreements already in place. An open and transparent information exchange is crucial. The establishment of an early warning system encompassing all the countries in the region, with the participation of both the public and private sectors, would help to reduce major losses due to the spread of FMD virus.
- 4.4. It is recommended that all countries in the region review their FMD surveillance systems, particularly regarding diagnostic tests used to demonstrate the absence of viral activity. Emphasis should move away from VIAA and EITB and towards the use of the more sensitive ELISA. Furthermore, in order to demonstrate the absence of viral activity, the countries that are in the process of achieving the status of FMD free, should use periodic serological surveillance in nonvaccinated cattle and sheep in risk areas, to determine their situation.
- 4.5. The establishment of a permanent area of high risk along the Argentine - Paraguay border in Formosa province as described by SENASA officials is necessary in recognition of the geographical, cultural, social and economic factors in the area.

Surveillance and prevention can be strengthened:

- by improving disease awareness in the population dealing with livestock,
 - by regular veterinary inspection of high-risk operations, e.g. community farms,
 - by performing the more sensitive ELISA testing in targeted samples originating from risk areas, young livestock and sheep that are in close contact with bovines.
- 4.6. SENASA needs to compile the results of serological testing (antibody estimation against structural and non-structural proteins) in a clear and concise way, to present a clear picture of surveillance activities. Results must relate to the origin, time of collection and the age of the animals from which the samples were collected.

⁹ ELISA: Enzyme-linked immunosorbent assay

Annex A: Itinerary

Friday 22 September:	14:00 – 18:00	Meeting with SENASA officials at the OIE Regional Representation headquarters
Saturday 23 September:	8:30	Flight to Formosa by official plane and drive to Clorinda to visit local office, to visit the sites of activities and to view the border area.
		Overnight in Formosa
Sunday 24 September:	9:00	Flight to Mercedes (Corrientes)
	10:00	Visit local office of SENASA and discuss activities in Corrientes
		Return to Buenos Aires
Monday 25 September:	8:30	Visit Martinez laboratory and visit with laboratory staff
		Preparation of draft report
Tuesday 26 September:		Completion of draft report

Annex B: Officials contacted

Friday 22 September – OIE Regional Representation headquarters

Greco, Eduardo (Director of Epidemiology SENASA)
De la Sota, Marcelo (Sanitary Programs Coordinator SENASA)
Mascitelli, Leonardo O. (Border Sanitary Control Director SENASA)
Idigoras, Gustavo (International Activities SENASA)

Saturday 23 September – Clorinda (Formosa) local office SENASA

Torres Daniel Aníbal (SENASA)
Mascitelli, Leonardo O. (SENASA)
Serocai, alcides Victor (Local vet. Coord.)
Esquerchia, Gustavo (Local Vet. Coord.)
Pico, Horacio (Local vet. Coord.)
De la Sota, Marcelo (SENASA)
Comandante Mayor Szabo, Francisco (E.N.)

Sunday 24 September – Mercedes (Corrientes)

Arzuaga, Arturo Enrique (SENASA Provincial Coordinator)
Panazzo Roberto Domingo (VM Chief of SENASA local Office)

Monday 25 September – SENASA Laboratory in Martínez, Buenos Aires

Segare, Gabriel (DILAB-SENASA)
Carullo, Maria (SENASA)
Mazzuca, Oscar (SENASA)
Bergmann, Ingrid (PANAFTOSA)
Maradei, Eduardo (SENASA)
Rodriguez Toledo, Jorge (SENASA)