

REPORT

EXECUTIVE COMMITTEE

*Dublin,
Ireland
9 & 10 June
2004*

**of the European
Commission for the
Control of
Foot-and-Mouth
Disease**

Seventieth Session



Food
and
Agriculture
Organization
of
the
United
Nations



**EUROPEAN COMMISSION FOR THE CONTROL OF
FOOT-AND-MOUTH DISEASE**

REPORT

of the

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Rome, 2004



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INTRODUCTION

The Executive Committee of the European Commission for the Control of Foot-and-Mouth Disease (EUFMD) held its Seventieth Session in Dublin, Ireland on 9 and 10 June 2004.

Members of the Executive Committee present were: Dr Karin Schwabenbauer, Germany (Chair); Dr Tibor Balint, Hungary; Dr Romano Marabelli, Italy; Dr Sloboden Cokrevski, the FYR of Macedonia and Dr Preben Willeberg, Denmark.

Apologies for absence were received from Dr Stylas (Greece) and Dr Nihat Pakdil (Turkey).

Present as observers were: Dr Kris De Clercq (Belgium), Chairman of the Research Group; Dr Dewan Sibartie, OIE and Dr David Paton, WRL. FAO was represented by Dr Joseph Domenech, Chief of the Animal Health Service. Additional observers present were Dr Patrick Rogan, Chief Veterinary Officer, Ireland and Dr Mustafa Tufan, Turkey.

Apologies were received from Dr Alf Füssel of the European Commission, DG-SANCO.

The Secretariat was represented by Dr Keith Sumption (Secretary), Dr Donal Sammin, (Associate Professional Officer) and Ms Egiziana Fragiotta, (Administrative Clerk).

The meeting was chaired by Dr Karin Schwabenbauer, Chair of the Executive Committee. She opened the meeting by thanking Dr Patrick Rogan and his staff for their efforts in organising the meeting so efficiently. She welcomed all those present and expressed her satisfaction to see that most of the members were present.

The floor was given to Dr Patrick Rogan the Chief Veterinary Officer of Ireland who welcomed all those present to Dublin. He pointed out how he thought it was most appropriate for Ireland to host this Session as well as the 50th Anniversary Event as Ireland was one of the founder member countries. He recollected seeing a photo of the first ever meeting of the Commission in which his father was part of the delegation. In addition, the first Chairman, Dr Nagle, was also Secretary General of the Department of Agriculture at that time. He wished the meeting success and informed that he would join the meeting again as soon as other pressing engagements permitted.

The Secretary, Dr Keith Sumption, thanked Dr Rogan on behalf of the Commission for the efforts of the Department of Agriculture for ensuring that the meeting arrangements were in place. Special thanks were conveyed to him and the Irish authorities and to Dr Sammin of the Secretariat for the exceptional assistance provided in ensuring visa requirements were obtained for some of the guests.

Item 1. Adoption of the Agenda

The Agenda was adopted with amendments (**Appendix 1**).

Item 2. FAO vision for EUFMD Commission in the context of the OIE/FAO agreement and the global framework on Transboundary animal diseases

Dr. Joseph Domenech gave a short presentation (**Appendix 2**) on the global framework on the progressive control of Transboundary Animal Diseases (GF-TADs), and outlined the recent positive steps in the working relations of FAO and OIE, including the signature by both parties of a new FAO/OIE Agreement and the common document on the GF-TADs. After 50 years of action and progress in disease control, FAO is proud of the work of the EUFMD Commission, and considers that there is a need to further strengthen its activities. The EUFMD Commission remains an excellent example of an efficient structure, through an application of key criteria, such as i) focus on one main issue, FMD; ii) good collaboration between the European countries, FAO, OIE and the European Commission; iii) catalytic in operating style, promoting and supporting actions from a small structure; iv) proper balance between zoo-sanitary technical experts and laboratory scientific experts. It should continue to play in the future an important role as a regional organization and due to the worrying international situation, particularly in the developing countries, EUFMD should become a real “observatory” on the global situation of FMD. The work in the neighbouring

region including North Africa will have to be developed but in addition, and considering the necessity to improve the informations on the virus circulation in the developing countries (epidemiological information, virus strain identification), EUFMD should link with the laboratories and field services, promote the exchanges of strains and the participation of the researchers and experts of the developing countries to the international fora (particularly the different workshops and conferences organized by EUFMD), but without EUFMD implementing control actions in these regions. In order to increase the participation of the members of the Executive Committee, an evolution of the functioning of EUFMD could be considered with, for example, less meetings, replacement of some of them by VIDEO conferences or teleconferences, organization of meetings with the 3 or 4 main actors, or of back-to-back meetings.

During the discussion, several participants gave their thoughts on the future of the EUFMD Commission. A common understanding was reached on issues such as a need to:

- Continue to act as a regional specialized body, with a strong collaboration between the European countries, FAO, OIE and EC.
- Better explain to the governments and other decision makers the role and activities of the EUFMD Commission and its complementarities with other specialized bodies.
- Focus on the protection of the European countries, through continued support to member states to assist them and through developing the activities in the regions bordering Europe and follow the situation in the developing world where the disease is still present and where there is a clear evidence of risk.
- Prepare a strategic mid-term programme, with a clear vision on the main trends and activities of the EUFMD Commission during the next 4 to 5 years.
- Develop the epidemiological analysis, using the modern new tools the science can offer, in order to allow prediction and early warning.
- Revisit the EUFMD Constitution, in particular its functioning rules.

Conclusions

1. The future work programme of the Commission must continue the activities i) in support on the Veterinary Services of the country members; ii) to reduce risk from neighbouring regions; iii) to follow the situation in the developing world ("Observatory") and promote the exchanges of researchers experts and strains.
2. There is a need to enable greater involvement of deputies to members of the Executive Committee in the EUFMD work, including sessions, which could benefit development of the programme of work and also benefit the members states involved.

Recommendations

1. The Secretariat should prepare a strategy document outlining the aims, expected and potential activities to be conducted over the next 4 to 5 years. This should be circulated to members of the working group (Dr Preben Willeberg, Dr. Romano Marabelli, Dr Nihat Padkil, Dr Kris De Clercq, and any other member of the Executive Committee who would like to join the working group) by the end of July and to be circulated within the Executive Committee. This draft strategy document will be discussed at a meeting of the Executive members at the occasion of the next meeting of the OIE European Regional Commission (Avila, Spain, September 2004).
2. The Secretariat should prepare proposals to modify the Constitution in respect of participation of deputies at Sessions, and circulate them to the Executive Committee members. The decision to propose amendments should be made either at Avila or through e-mail consultation in order that member countries can be informed at least 120 days before the 36th General Session.

Item 3. Coordination of technical R&D on FMD

Coordination action proposal to EC DG-Research

Dr Paton presented an overview of a project which had been submitted for funding by the European Commission, DG-Research, aimed at strengthening the network of FMD and Classical Swine fever (CSF)

laboratories in Europe. FAO, through the EUFMD Commission, and OIE were partners in the application, and would therefore be involved in project management, through a steering committee. He emphasised that the funding would ensure wide participation from other laboratories in the European region, and to ensure that in the FMD field in particular, interaction with other regions of the world would take place in order to develop consensus and progress in areas where information sharing between regions has been a constraint. The proposal had received a very favourable evaluation and negotiation of the contract was soon expected, with expected funding of around 1 million euro. The Secretary, EUFMD Commission had agreed to lead one of the workpackages, on refinement of disease management and control options. He stated that the intention was to reduce and streamline the number of meetings on similar topics, and reduce actual or potential overlap. There is potential for overlap to develop further once the European Community Reference Laboratory for FMD is designated.

In discussion, Dr Willeberg stressed the need for involvement of quantitative epidemiologists and the importance of maintaining their expertise and engagement with FMD on a long term basis. He therefore supported the involvement of EUFMD in the Coordination Action, and particularly in the area of decision support to policy makers. The needs of the European CVOs for information and opinion that support policy development was stressed by several members. Decision makers require a forum and body to provide opinion and information. The importance of the continuation of the EUFMD Research Group/Standing Technical Committee as a permanent platform was emphasised, since the support expected from the European Commission was time limited.

The question of human resources was raised. The heavy and expanding work programme requires continued support to the Secretariat. Further associate professional officer (APO) support was considered essential.

Vision statement of the Research Group

The Secretary brought to the attention of the Committee the importance of having a vision for the future role of the group, and Terms of Reference to guide the Chairman and members of the group. The issue had been raised when the election procedures were discussed at the Gerzensee Session of the group in 2003. The draft Terms of Reference, as developed at Gerzensee, were presented and discussed.

Terms of Reference of the Research Group of the Standing Technical Committee

Modifications were proposed, and the Terms of Reference were agreed as follows:

1. To provide technical guidance to the Executive Committee of the EUFMD Commission, and thereby to the member states and wider international community.
2. To identify technical gaps relating to FMD control that should be brought to the attention of the Executive Committee, and/or the member states.
3. To assist in the maintenance of expertise on all aspects of FMD control.

Conclusions

1. The Executive Committee supported the involvement of the Commission in the coordination action under negotiation with EC-DG Research.
2. There is a need to maintain and develop expertise in areas which support decision making in FMD management.

Recommendations

1. Further research and development investment is essential for the development of improved control methods that are applicable in Europe and which should be of benefit in the control of FMD in endemic areas which provide a threat of FMD to Europe.

2. The balance of EUFMD Standing Technical Committee (Research Group) expertise and activities should be re-adjusted, towards the disciplines relating to control of disease, including surveillance and early warning.
3. That the permanent platform of the Standing Technical Committee continues for the foreseeable future, with additional support for mobility and information exchange.
4. Member Countries should provide an APO to maintain continuity in the provision of APO support to the EUFMD Commission to assist coordination between policy makers of the member states and the STC and European research network.

Item 4. Outstanding Contributors to the work of the EUFMD Commission, 1954-2004

The Secretary explained the procedure used in drawing up the 25 nominees for awards. A questionnaire had been sent to the CVOs of the member countries, and to scientific and technical experts with many years of experience in FMD research relating to control of the disease in Europe. Strenuous efforts had been made to ensure that experts were consulted from each of the European countries. A far greater response was obtained from the scientific community than from the CVOs. In addition to the questionnaire, the number of years of contribution to EUFMD Sessions was analysed, and in the case of technical contributions, the number of papers published in the EUFMD reports. The list of 25 nominees for awards was reviewed and accepted without change. The Executive Committee upheld the proposal of the Secretariat to make awards to 5 laboratories in recognition of their outstanding contribution. The five laboratories to be so recognised are: The World Reference Laboratory for FMD, Pirbright, UK; Friedrich Loeffler Institute, Insel Riems, Germany; IFFA-Merieux, Lyon, France; All Russian Institute for Animal Health (ARRIAH), Vladimir, Russia and INIA, Madrid, Spain. It was agreed that the Secretariat should circulate immediately the list to the CVOs of member countries ahead of the event on 11 June. This was subsequently undertaken and the list of nominations and awards are given in **Appendix 3**.

Item 5. Update on the FMD risk situation – with particular reference to coverage provided by the antigen banks

Dr Paton presented an update on the risk situation (**Appendix 4**). On the basis of the information available, there is no indication of major change in circulating antigenic types or in the suitability of the main type O and Asia-1 antigens in the European vaccine banks. The diversity of type A viruses in the middle east remains a concern. However, the number of countries submitting samples to the WRL in 2004 has been low (Bhutan, Israel, Malaysia, Saudi Arabia, plus a set of samples from the OIE regional reference laboratory in Botswana) and much of the information is therefore based on the analyses of isolations from 2003, supplemented by information and expert opinion from discussions with other international reference laboratories. The priority antigens for the European banks were revised in 2003, and published in the Report of the Gerzensee meeting of the EUFMD Standing Technical Committee.

In discussion, the representative of Turkey requested information on Asia-1 distribution in 2004. The Secretary reported that he had received unofficial information from Iran that Asia-1 occurrence was limited in 2004 to the two provinces of eastern Iran, bordering to Afghanistan and Pakistan. The information suggests that there is a reason to maintain Asia-1 vaccination in the higher risk parts of Turkey. He added that this information is very important and highlights the need for rapid implementation of a formal project with Iran.

The Secretary suggested the volume of information on FMDV viruses circulating in 2004 is a severe constraint to early warning of antigenic change and to risk assessment. This was not a criticism of the WRL since it was evident that very considerable effort is made to follow up each new outbreak with requests for samples, and through sending kits to assist sample preservation and transportation.

Dr Sibartie indicated that the OIE takes every opportunity to remind member countries of the need to submit samples for typing. However, the OIE does not have a requirement on reference laboratories to submit samples to the WRL for antigenic typing, but is concerned to increase the support for reference laboratories to fulfill their responsibilities. The OIE is concerned about the impediment of transport regulations and the

costs for transportation of samples to international reference laboratories and has taken steps to ensure better representation at the IATA meetings relating to this, via WHO.

The OIE has also established an ad hoc group and several of these issues could be discussed further at the first meeting, to which the EUFMD Secretary and Chairman of the Research Group are invited to participate. In discussion of the implications of the new reporting system of the OIE, Dr Sibartie mentioned that if significant epidemiological events occur, member countries should notify the OIE. However, concern was registered that where FMD is endemic, the loss of the monthly reporting system to the OIE might result in less information for international bodies and third countries on which to assess trends in risk.

Conclusion

1. The FMD risk situation has not, on the basis of available information, significantly changed since the 69th Session of the Executive Committee.
2. The antigens for inclusion in the vaccine banks, as recommended by the Standing Technical Committee in 2003, remain unchanged on the basis of the submissions to the WRL and information available in 2004.
3. There remains a strong and urgent need to address the limited submission of samples to the WRL and of available information on circulation of virus strains.
4. There remains a very serious lack of information on trends in virus outbreaks in endemically affected countries, and the recently proposed notification system of the OIE should ensure that member countries provide timely information of new disease trends.

Recommendations

1. Member countries are urged to support the implementation of the OIE/FAO/WHO Global Early Warning System (GLEWS), and that EUFMD should play a role in the system to ensure outputs are in line with the needs.
2. The surveillance project in Iran should be implemented without delay to provide essential information to the region.
3. The EUFMD should continue to support the delivery of specimens to the WRL, but the Secretariat should explore other more flexible means to ensure timely delivery of samples in emergency disease situations.
4. That EUFMD support the development of networks for exchange and training of staff from endemic countries where necessary, through financial support to a level decided by the Executive Committee.

Item 6. Report on FMD vaccination in Spring 2004 and other aspects of FMD control in Turkey

Dr Tufan presented the report of Turkey (**Appendix 5**). Thirty-four outbreaks had occurred in 2004 to the end of May, of types A and O; type Asia-1 had not been observed since April 2002. Serological monitoring had been increased following the support of the EUFMD Commission in 2003 in supplying equipment, and the FAO TCP project; surveys in Thrace region have followed the recommendations of the FAO TCP, and also have been conducted in south-eastern Turkey in mid-2004, but laboratory results were not yet available. The spring vaccination programme in Thrace region had been conducted, with coverage of 87% of large ruminants and 91% small ruminants in the region. In Anatolia he reported that 5.2 million large and 1.3 million small ruminants were vaccinated, 83% and 82% of the populations scheduled for vaccination. In discussion it was clarified he agreed that since not all ruminants were scheduled for vaccination, the population coverage of large and small ruminants in the country was 6.7 million of 9.9 million (67%) and 1.8 million of around 32 million respectively (6%).

Dr Tufan reported that a policy change in Thrace region, to slaughter with compensation, had been introduced.

In discussion, while congratulating Turkey on the move to a policy of slaughter with compensation in Thrace region, more information was requested on the detailed policy with respect to slaughter on a individual animal/herd/village basis, and to the policy with respect to herds and animals shown positive on post-outbreak serology.

The positive impact on FMD incidence in Turkey over the past few years was also to be congratulated, and Turkey was encouraged to act as a role model and positive influence on the situation in neighbouring countries¹.

The Committee considered vaccination coverage in Anatolia was of concern; although 84% of large ruminants scheduled for vaccination had been covered, this represented only 65% of the total population. Since not all animals respond to immunisation and coverage is not long lasting, the effective population immunity could be considerably lower. The objective and value of vaccination of sheep was also unclear to the Committee. Dr Tufan indicated that the lack of vaccine was a principal constraint to higher vaccination levels in sheep.

The Committee were also concerned that the issue of animal identification, especially the issue of sheep identification, be adequately addressed. The authorities were strongly encouraged to develop a functioning animal identification system. More information was sought on the state of initiatives being undertaken towards this objective.

Conclusions

1. There is a need to document the ongoing activities in Turkey relating to animal disease control, animal identification, project activities and internal investments, in order to identify the potential strategy for support needed over the coming years.
2. The change to a stamping-out policy in Thrace region is a positive development, but more information on the regulations to be applied are requested, and the situation of follow-up sero-surveillance and outcome of positive results to be given.

Recommendations

1. An additional half-day extension to the OIE/FAO-EUFMD/EC Tripartite should be organised in order to review and summarise the information on the proposed changes to FMD control in the upcoming years.
2. An extensive overview of the situation in Turkey should be prepared, with the support of the EUFMD Secretariat, which should also consider how EUFMD could further assist Turkey in the control and eradication of FMD.

Item 7. Report of activities conducted under FAO project TCP/RER/2903 on FMD, bluetongue and PPR surveillance in Thrace Region

The activities undertaken under the project were noted. The report presented to the Executive Committee by the Secretary is in **Appendix 6**.

Item 8. Field testing of draft guidelines for FMD investigation

Dr Sammin presented a summary of this initiative (**Appendix 7**). As agreed at the 69th Session, a proposal had been developed and submitted to DG-SANCO in late 2003 for use of the Trust Fund to support improvement of surveillance actions including the field testing of guidelines for outbreak investigation. These guidelines had been developed through a workshop in December 2003 in Athens on FMD outbreak investigation, carried out under the FAO TCP for Thrace region. The intention was to improve the guidelines

¹ For information, in June, Turkey supplied circa 100,000 doses of trivalent vaccine to Georgia, following an emergency request of the Government of Georgia and mediation by the EUFMD Commission. A similar offer of support to Azerbaijan was also being considered.

through application to a real outbreak situation, and a tentative date of May 2004 had been set for his activity. The reply, and necessary go-ahead, from the EC had not yet been received and therefore a modified proposal was tabled at the Session. The estimated costs of circa US\$ 15,000, covered only one field visit of 2 weeks duration, and was therefore considerably less than the total for all of the activities originally proposed; the Secretariat considered that there continues to be a need for the other proposed surveillance activities to be undertaken, such as the pilot studies on surveillance in livestock markets.

In discussion, Dr De Clercq supported the proposal and requested that if possible the results, particularly guidelines relating to application of NSP serological tests, should be made available to the EUFMD Standing Technical Committee at the October meeting.

Conclusion

1. The proposed pilot study remains highly necessary and should be conducted in the coming months when FMD risk is usually at its peak.

Recommendation

1. The proposal to utilise US\$ 15,200 from the Trust Fund is supported.

Item 9. FMD Control in the Caucasus, and Item 10, project development for medium to longer term FMD control in the region

The Secretary briefly reviewed the progress in the period since the 69th Session. With the support of the EC through the Trust Fund, training in FMD laboratory methods was conducted for 9 persons, three each from Georgia, Armenia and Azerbaijan. The training was conducted at the SAP Institute, Ankara, for persons from Azerbaijan and in Sofia, Bulgaria for the other participants. At the end of the training, assessments were made of the required essential diagnostic support during 2004, and this was estimated at US\$ 30,000 per country. The EUFMD organised a tripartite EUFMD/EC/OIE meeting in Budapest, Hungary, on 15 March 2004, which focussed on issues relating to FMD surveillance and control in the short term, followed by a workshop on FMD outbreak investigation given in Russian and English for the three countries. The report of the Tripartite is given in **Appendix 8** and of the workshop in **Appendix 9**. He also outlined the main points of agreement in the subsequent meeting held at the OIE on 5 May 2004 to discuss mid- to long-term FMD control in the region. At that meeting he had reviewed the actions taken in 2003, indicating the concerns over the level of NSP positive animals in some parts of the Georgia/Armenia border, the particular difficulties posed by the lack of reporting of the FMD situation in 2002. Following the discussions on this problem in Budapest in March, the Georgian authorities had reported without delay suspicions of FMD to the OIE, and as a response the Commission had immediately brought forward supply of diagnostic reagents. This may be seen as a vindication of the approach taken by the international organisations at the Budapest meeting to link the dialog on the major inputs such as supply of vaccine to the fulfilment of obligations for reporting to the OIE. He indicated the importance of the Paris meeting to developing a coordinated regional approach to the problem. The meeting agreed in principle that a regional FMD control coordination centre should be established in Georgia. The Government of Georgia agreed to the supply of an office, but the personnel costs would require to be found through project funds. EUFMD had agreed to take forward the preparation of a project document and negotiations for funding. The Secretary had convened a meeting with the delegates of Georgia, Azerbaijan and Turkey in Paris on 25th May to discuss development of the proposal. In outlining the proposal prepared (**Appendix 10**) he indicated that the situation presented a strong case for a formulation mission to develop a long-term project.

In discussion, the need for change in the management of FMD in the region was emphasised. Incentives for the countries to change were considered essential to any lasting progress. Access to international markets in the short-term was considered unlikely. Other incentives, as well as political support, will be required. The importance of coordination of inputs in 2004-2005 was emphasised. The EC had pledged support at the 5th May meeting for supply of vaccine for the buffer zone in autumn 2004 and into 2005, although exact details of the modalities and amounts had not been decided; FAO had indicated approval of the regional TCP project, for strengthening surveillance and control of FMD and other TADs, which will focus on information

systems, diagnostic support and contingency planning (CP). Further, the inputs agreed in principle at the Budapest meeting required to be delivered by EUFMD; the Secretariat required a written approval from DG-SANCO to authorise use of the Trust Fund.

The Session agreed that there was a strong and urgent need for an international coordinator to ensure that inputs planned at the 15th March and the 5th May meeting were most effectively used.

Conclusion

1. A regional approach to the control of FMD is required.

Recommendations

1. That DG-SANCO be requested to support personnel costs of coordination for the coming 1-2 year period. The coordinator should have excellent understanding of the approach of the Tripartite group, of contingency planning, of monitoring of vaccination campaigns, have English and Russian skills, and be approved by the countries concerned.
2. A project design mission should be carried out as soon as possible, to plan in detail a project proposal for the three countries. The EC and other donors should be requested to support the mission costs. The EUFMD will propose the TOR for the mission and the team composition.
3. The EUFMD should make efforts to ensure a maximum coherence of support projects in the interim period, including support for vaccine supply, diagnostic laboratories and development of Contingency Plans.

Item 11. FMD surveillance – collaboration with Iran

The Secretary reported that the Commission still awaited a response from DG-SANCO to the request for funding submitted in October 2003 for the support of surveillance actions in Iran and Turkey. The lack of response was of concern to the major parties involved. Dr Domenech briefed the Committee on the discussions held in Paris in May with representatives of the Iranian Veterinary Organisation (IVO) and the Government of France; the indications were that the Government of France (GoF) would support the international co-ordinator to begin duties in late 2004. The IVO strongly represented their position that the project should be initiated without further delay. It was agreed to proceed on the assumption that the support from DG-SANCO would be forthcoming by late 2004. FAO will finalise the agreements with GoF regarding secondment of the coordinator to the project.

Conclusion

1. The proposed project remains of high importance and FAO should take all necessary steps to ensure coordination with the Government of France to ensure the management of the project is clarified and implementation can begin when the financial guarantee from DG-SANCO is received.

Item 12. Progress against the workplan of the Research Group

The workplan of the group, which had been agreed in September 2003 at the Gerzensee Session, was summarised by Dr De Clercq (Appendix 11). He reminded the Committee that it is a new working procedure for the group to adopt a workplan, and inevitably, there was more progress in some areas than others, and that progress usually occurred because the item of work was partly or wholly supported by other financial sources such as EC research projects. Good progress was reported in most of the areas, particularly relating to validation and comparison of NSP tests, on biosecurity standards for serology laboratories, and the Cordoba workshop had been a major success and had stimulated progress and “buy-in” of European diagnostic laboratories. With regard to development of guidelines for surveillance, it was essential for the work to be informed by the needs of the OIE ad hoc group on this subject in order that the work directly contributes to international standards. Less progress had been made on field testing of portable diagnostic

devices, or on development/implementation of work to identify virus inactivation kinetics that could result in more acceptable standards for treatment meat and dairy products.

In response, the Committee thanked the Chairman and the group for the effort and the progress achieved. There was agreement that efforts were needed to secure funding for the work on inactivation kinetics, and that the industry should be expected and approached to support this.

Dr Sibartie indicated that the OIE welcomed input of the EUFMD research group experts into the development of the surveillance guidelines. The timing of such inputs should assist the final review of the guidelines over the coming months, for potential adoption in 2005.

In discussion, Dr Tufan proposed that portable diagnostic tests could be evaluated using the exercise in Anatolia. The Committee welcomed the proposal.

Conclusions

1. The Standing Technical Committee is to be congratulated on the quality and effort of the working groups.
2. Funding for the work on inactivation kinetics of virus in pork and milk from infected and/or vaccinated animals is urgently required. Industry should be approached for support.

Recommendations

1. The OIE should be requested to allow participation of a member of the Technical Standing Committee with expertise on FMD surveillance in the ad hoc group addressing surveillance guidelines for FMD. The participation cost would be borne by the EUFMD.

Item 13. Report on the Workshop on Laboratory Contingency Planning (LCP) held in Cordoba, 28-30 April 2004

The Secretary presented a summary of the workshop (**Appendix 12**). The workshop was conducted following the recommendation of the EUFMD General Session in 2003, and provided a major occasion to engage with those responsible for management of FMD diagnostic facilities in Europe. The workshop was part supported by EC through the Trust Fund, and almost all European countries were represented. The workshop brought attention to the problems of rapid scaling up of activities; identified and proposed options for addressing the major issues in scaling up, especially sero-diagnostic capacity; reached agreement on the need for a revised biosecurity standard for sero-diagnostic laboratories to enable commissioning of auxiliary centres to undertake high volume serology using safe reagents and practises; and reached agreement that laboratories should each develop their own Laboratory Contingency Plans (LCPs) by the end of 2004.

Many participants considered that their responsible authorities in Government did not adequately recognise the problem of lack of capacity in centralised, high containment facilities for the volume of activity required in emergency situations. It was agreed that development of LCPs should assist problems to be brought to the attention of Government and extra-capacity alternatives to be identified and contacted.

The workshop strongly supported the EUFMD Standing Technical Committee to progress the completion of work on guidelines for biosecurity, on transport of samples between laboratories, on the development of the European diagnostic reagent bank, and on development of guidelines for portable diagnostic devices.

Recommendations

1. The working groups should complete their tasks in advance of the Session of the Standing Technical Committee in October 2004 in order that guidelines be considered final.
2. Member countries should be made aware of the conclusions and recommendations of the workshop and take action as appropriate.

3. Laboratories are strongly encouraged to complete development of the LCPs by 2005.

Items 14 and 15 – Report on the Workshop held in Brescia for comparison of DIVA tests for detection of NSP-antibodies, and report on the activities conducted under Letters of Agreement to collect samples for DIVA test validation – Israel and Zimbabwe

Dónal Sammin presented a paper on the evaluation and validation of tests used to differentiate vaccinated from infected animals (**Appendix 13**). The paper described the implementation of Letters of Agreement with the veterinary services of Israel and Zimbabwe which involved the field collection of sera from more than 800 vaccinated cattle some of which had recovered from naturally-acquired infection (by type O and SAT-types of FMD virus, respectively). In addition to sera, other clinical specimens and clinical data which may be used for DIVA purposes were collected from FMD-convalescent cattle in Zimbabwe. Data derived from testing the Israeli sera was discussed at an important workshop (summarised in **Appendix 13**) on comparative evaluation of FMDV-NSP antibody detection ELISAs (*Istituto Sperimentale della Lombardia e Emilia Romagna*, Brescia; 12-15 May 2004) which was jointly supported by the EC and EUFMD. The Workshop had participants from WRL (Pirbright), VAR (Brussels), Lindholm, Lelystad, Insel Riems, Brescia, Kimron (Israel), SAP Institute (Turkey) and Panaftosa (PAHO, Rio de Janeiro) laboratories. During the course of this workshop more than 2000 bovine sera were tested with each of six different assays. On preliminary analysis of the results, at least one of the assays available in European laboratories was seen to have performed as well as the South American system endorsed by the OIE. Although ovine and porcine sera were also included in the comparative evaluation, relatively few sera from vaccinated and infected animals were available so there is still insufficient data on the use of NSP antibody detection methods as DIVA methods in these species, particularly in pigs. The preliminary report is available from the Secretariat and the final report should be completed for presentation at the October Session of the EUFMD Research group.

Conclusions

1. The Executive Committee congratulated the Standing Technical Committee and the Secretariat for the work conducted with the aim of validation on comparative evaluation of DIVA tests. The work is considered of first rank importance for Europe and a full discussion of the final results will be an important item for discussion at the Executive Committee meeting, and possibly the General Session in 2005.
2. The lack of samples to enable validation in sheep and pigs requires to be addressed.

Recommendation

1. A similar study to that conducted in Zimbabwe should be conducted for the purpose of validation of assays for pigs.

Item 16. Finances

The statements of the Secretary, on the accounts provided by FAO (**Appendix 14**) were accepted.

The proposed budget of the Commission for the next biennium should be circulated by the middle of October 2004.

Item 17. Any other business

Dates of next meetings:

- Tripartite for the Caucasus: 4-5 December in Kiev (subsequently agreed to be held on 6 December)
- 71st Session of the Executive Committee: 16-17 December in Rome (subsequently postponed to January 2005)

- 36th General Session:

Week beginning 25 April 2005
in Rome.

Agenda for the 71st Executive Committee:

1. Strategy paper – EUFMD over in the next 4 years
2. Work programme of the EUFMD Commission for the biennium 2005-2006
3. Budget of the Commission
4. Election procedures
5. Changes to the Constitution
6. Report on the progress made 2003-2004
7. Other items as proposed by the Secretariat and President.

**70th Session of the Executive Committee of the European Commission
for the Control of Foot-and-Mouth Disease
9-10 June 2004, Dublin, Ireland**

Provisional Agenda

- Item 1. Adoption of the Agenda
- Item 2. FAO vision for EUFMD Commission in the context of the OIE/FAO agreement and the global framework on transboundary animal diseases
Dr J. Domenech
- Item 3. Coordination of technical R&D on FMD
- EUFMD role in the Co-ordination Action funded by DG-Research, EC
Dr Paton, WRL & Dr De Clercq
- Vision Statement of the Research Group
Secretariat
- Item 4. Outstanding contributors – 1954-2004
Secretariat
- Item 5. Update on the FMD risk situation – with particular reference to coverage provided by the antigen banks
Dr Paton, WRL
- Item 6. Report on FMD vaccination in spring 2004, and other aspects of FMD control in Turkey
Dr Pakdil
- Item 7. Report of activities conducted under FAO project TCP/RER/2903 on FMD, bluetongue and PPR surveillance in Thrace region
Secretariat
- Item 8. Field testing of draft guidelines for FMD investigation
Dr Sammin/Secretariat
- Item 9. FMD control in the Caucasus region
- Activities conducted since the 69th Session
- Report on the EUFMD-FAO/EC/OIE Meeting in Budapest, 15th March
- Report on the Meeting at the OIE in Paris, 5th May
Dr Sumption/Secretariat
- Item 10. Project development for medium- longer-term control of FMD and other highly contagious diseases in the Trans-Caucasus
- Item 11. FMD surveillance – collaboration with Iran
- Item 12. Progress against the workplan of the Research Group
Dr De Clercq
- progress
- gaps remaining to be addressed
- Item 13. Report on the Workshop on Laboratory Contingency Planning held in Cordoba, 28-30th April
Dr De Clercq
- Item 14. Report on the comparison of DIVA tests for detection of NSP-antibodies
Dr De Clercq
- Item 15. Report on the activities conducted under Letters of Agreement to collect samples for DIVA test validation – Israel and Zimbabwe
Dr Sammin/Secretariat
- Item 16. Finances
- Item 17. Any other business

**FAO vision for the EUFMD Commission in the context of the FAO-OIE Agreement
and the Global Framework on the Control of Transboundary Animal Diseases**

Joseph Domenech
Chief, Animal Health Service, FAO, Rome

1 - Introduction

The European Commission for the Control of Foot-and-Mouth Disease (EUFMD) was created 50 years ago and this event will be celebrated in Dublin this year. After these 50 years of action and progress in disease control, the country members and FAO can be proud of the work accomplished by the EUFMD Commission. There is a need to continue and to further strengthen its role and this can be done in a context of the recent positive step in the working relations of FAO and OIE.

The EUFMD can continue to act as a regional specialized body, with strong collaboration between the European countries, FAO, OIE and the European Commission.

2 – FAO-OIE Agreements

On 24 May 2004, a new agreement was signed between FAO and the OIE, replacing a preceding agreement almost half a century old. The new agreement is a highly important development, in updating the agreement to reflect present reality and vision, and redefines the fields and methods of collaboration between the two organizations according to their respective missions and mandates. The complementarities and synergies between the organizations will be required in putting into practice the operation of common activities and programmes, including the early warning system for animal disease risks; the collection and analysis of animal health information; the definition and the setting in place of strategies for control of the major diseases; the promotion and coordination of research on animal and zoonotic diseases, and those with impact on food safety, and with the organization of meetings of experts. The participation of FAO in the development of the standards of the OIE and that of OIE in the standards of CODEX also forms part of the fields of collaboration between FAO and the OIE.

An initiative of international significance, the Global Framework for the Control of the Transboundary Animal Diseases (GF-TADS) was the subject of a particular agreement between FAO and OIE, signed on 24 May 2004, and which relates to the regional and international approach to the control of the principal transboundary diseases in the developing countries.

Even prior to the current HPAI crisis, FAO and OIE have examined the problem of transboundary animal diseases from the perspective of the complexity of environment, market access, food chain and human welfare, as well as considering the international public good goals of Social Equality, Sustainability of Natural Resources Use, and Veterinary Public Health. Thus the GF-TADS proposes the effective prevention and progressive control of major TADs as an effective contribution to the achievement of the Millennium Development Goals by providing assistance and guidance to member countries through existing regional specialised organisations and their regional representation offices. To achieve this objective,

it is suggested that focussed efforts for the control of the major TADs must be at the source of infection and prior to the spread of the disease. The GF-TADs programme will be developed along four main thrusts:

- (1) A regionally led mechanism, to operationally address and implement action against priority diseases as agreed by relevant stakeholders;
- (2) The development of Regional and Global Early Warning Systems for major animal diseases;
- (3) The enabling and application of research on TADs causing agents at the molecular and ecological levels for more effective strategic disease management and control; and,
- (4) The completion of the Global Rinderpest Eradication Programme set for achieving global declaration of freedom by the year 2010.

The Outputs and Outcomes for the six-year programme (2004-2009) are:

- Country-based surveillance and disease reporting enhanced through capacity building of epidemiology units and of laboratory personnel.
- Concerted animal disease control programmes developed through the establishment of regional support units within ongoing regional specialised organisations and/or Regional Commissions. These regional support units will be in a position to assist in the direction of animal disease surveillance, and to provide mechanisms to meet specific regional needs.
- Regional and Global Early Warning Systems for TADs established with the collaboration of FAO, OIE and WHO, connected to regional epidemiological systems.
- Internationally verified global freedom from rinderpest - The Global Rinderpest Eradication Programme, GREP secured.
- Animal populations where primary endemic circulation of FMD and other selected TADs occur identified and characterised.
- International, regional, and national early response capacities for prompt and authoritative disease diagnosis and for targeted local disease control to limit the spread of new outbreaks of TADs established.
- Referral diagnostic and molecular biological capacity of OIE-FAO Reference Laboratories and Collaborating Centres strengthened and technology transfer provided to National Agricultural Research Systems (NARS), primarily through the established system of networks of national and Regional laboratories supported by the FAO/IAEA Joint Division and through North-South/South-South laboratory partnerships including the network of OIE-FAO reference laboratories.
- Assistance in the development of TAD research programmes provided through FAO and OIE Collaborating Centres and other advanced research institutes (ARIs) as appropriate.

The concepts underlying this GF-TADs initiative and the mechanisms of implementation will be used henceforth as a model for the preparation of programmes and regional projects for control of animal diseases and it is in this context that are already under development of the projects in several parts of the world, in particular for avian influenza in Asia and on foot-and-mouth disease in Asia and in the area of the Caucasus.

This GF-TADs could therefore provide an excellent platform for the implementation of actions against FMD in Europe.

3 – FMD and Europe

FMD remains one of the major threats to livestock productions in Europe. It is one of the most contagious diseases easy to transmit from one region or country to another. The recent crisis in several member countries of the European Union unfortunately demonstrated this reality. FMD viruses still circulate in regions close to the EC, such as the Caucasus region, or not very far such as Northern Africa or the Middle East. The threat from the developing world, particularly Asia and Africa, is a fact that the European countries have to permanently take into consideration.

In the wake of the 2001 FMD epidemics in Europe, South America, Africa and Asia, the OIE International Committee, through Resolution XIII¹ of its 69th General Session, in 2001, and Resolution No XXI² of its 70th General Session in 2002, called on both the OIE and FAO to pursue an international concerted effort against a certain number of diseases having significant effects on food security, poverty alleviation, food safety, public health and access to formal markets. The report of the *Temporary Committee on Foot and Mouth Disease* of the European Union Parliament (3 October, 2002)³, concluded: *"In view of the intensification of world trade and global warming, a thorough analysis of the existing and likely future threats arising from the introduction of animal diseases into the EU which could cause major economic damage is urgently needed at European level"*; and, *"Lasting success can be achieved in efforts to control FMD worldwide only if it proves possible, through close international cooperation, to curb the disease decisively in areas where it is still endemic. The Commission should therefore do more to assist the countries concerned in their efforts to control or eradicate FMD and seek to improve cooperation with regard to information (early warning systems)"*.

The global nature of the problem of FMD and other TADs was also highlighted during the Ministerial Meeting on the occasion of the 31st Session of the FAO Conference (2001). The Conference recognized the widespread and increasing impact of epidemic animal diseases, like FMD, on agricultural development, trade and food security; and stressed the need to continue the work at the national, regional and international level to combat the disease by involving all relevant stakeholders. The World Food Summit: five years later (WFS:fyL, 2002) reiterated the 1996 commitment and called for specific action and voluntary financial contribution to the FAO Global Trust Fund to facilitate food security programmes and combat TADs.

The increasing importance of trade and expanded access to world markets by developing countries has also received high attention at the Doha Ministerial Meeting of WTO in November 2001, the UN Conference for Development in Monterrey in March 2002 and the World Summit on Sustainable Development in Johannesburg in September 2002. Enhanced trade in agricultural products in the South-to-North direction as well as among developing countries themselves is increasingly seen as a major factor in poverty reduction strategies. However, in order for developing countries to participate in formal trade in livestock products it is imperative that a concerted international effort be made for these countries to be able to fulfill the basic elements of the SPS Agreement. Central to this will be the effective

¹ ftp://ftp.oie.int/69SG_2001/a_reso_2001.pdf

² ftp://ftp.oie.int/70SG_2002/a_reso_2002.pdf

³ European Parliament: Temporary Committee on Foot and Mouth Disease. Draft Report. Provisional 2002/2153(INI). 3 October 2002. <http://www.europarl.eu.int/meetdocs/committees/fiap/20021107/475314en.pdf>

prevention and progressive control of transboundary animal diseases in livestock production systems by these countries. Thus, developing countries also require increased and sustained support in their efforts to be more fully integrated in the setting of animal health and food safety standards. Improvement in animal health and food safety status is bound to have a beneficial impact not only on the ability to participate in external trade but also on internal trade and the market integration of poor communities.

There is definitely a need to continue to have a focussed specialized mechanism/organism, the EUFMD Commission to prevent the FMD extension to Europe. For this purpose, the participation and support from the 3 international and regional institutions, namely FAO, OIE and EC, are crucial, together with the country members.

4 – EUFMD Commission

4.1 Roles and activities

EUFMD has a role which is basically at the service of the European country members. The European Commission as well as the OIE and the FAO benefits from the activities of EUFMD and these 3 bodies provide support and participation.

The mandates, missions and activities of EUFMD do not have to duplicate the ones of EC, FAO and OIE which are perfectly known and which are implemented by their respective offices in their Headquarters, Specialized Commissions, Representations and various Ad Hoc Working Groups.

EUFMD was established with the initial goals to combat and eradicate FMD in Europe and to co-ordinate national control programmes. The main thrusts are to prevent re-introduction, limit the risks from countries surrounding Europe and other countries and elevate the technical expertise.

The EUFMD structure is composed of an Assembly of the CVOs representing the 33 member countries (22 EU countries and 11 non-EU countries), an Executive Committee of 8 CVOs and observers, a Secretariat in Rome (2 persons plus 1 assistant), a Technical Committee of 12 elected specialists from member countries. In addition to that, 2 Tripartite groups were created between EUFMD, EC and OIE for the Caucasus Region (Armenia, Azerbaijan, Georgia) and for Bulgaria-Greece-Turkey.

EUFMD acts as a sort of specialized observatory for FMD in the world. It facilitates the exchange of information, experts and key players. It serves as a Think Group for the elaboration of new ideas and to design strategies, activities and specific programmes.

EUFMD develops its activities in strong collaboration with the OIE through the participation to ad hoc groups of OIE and vice versa, Reference Laboratory contracts, development of guidelines, joint participation to the EUFMD Tripartite Groups – FAO/OIE/EC - and continuous exchange of information. The collaboration with the EC includes continuous exchanges through the participation of EC to EUFMD meetings (Executive Committee meetings, Tripartite meetings...), and strong operational relationship through the FAO/EC Trust Funds for actions to protect Europe.

The main activities of EUFMD can be summarized and regrouped in several categories such as:

- Capacity building, through the organisation, for example, of training courses.
- Exchange of information and promotion of research, through the organisation of scientific workshops, seminars and specific research activities.
- Support to the Veterinary Services and Laboratories in the countries where it is needed, through expert missions, evaluations, assistance to project design...
- Promotion of identification of strains circulating in contaminated countries (improve the virus isolation and identification and final precise characterisation in the World Reference Laboratory) and exchanges of strains between the Reference Laboratories.

In the field of normative activities EUFMD circulates information on all aspects of FMD to the member countries and provides advice on preventing and controlling the diseases, through the organisation of technical workshops, the contribution to the establishment of guidelines and standards of reagents, security measures or contingency plans and through the revision of the FMD monograph of the European Pharmacopoeia.

Concerning the operational activities in the field, EUFMD implements or participates in the implementation of field projects such as the co-ordination of measures to combat the disease, if it occurs, the organisation of vaccination campaigns in regions at risk, the control of the disease and the creation of buffer zones, the support to surveillance activities or the development of appropriate contingency plans.

4.2 – Future of EUFMD

The missions, mandates and activities of EUFMD should continue with similar main global mechanisms and priorities than the current ones. The situation with regards to the FMD risks in the World and particularly the risks for Europe is not improving. Therefore, there is a need to maintain and to strengthen EUFMD and its position as a statutory Commission of FAO and to improve its role through a definition of a new strategic mid-term programme and a possible evolution of its functioning.

The EUFMD Commission remains an excellent example of an efficient structure, through an application of key criteria such as:

- Focus on the main issue, FMD.
- Good collaboration between the European Countries, FAO, OIE and the European Commission.
- Catalytic in operating style, promoting and supporting actions from a small structure.
- Proper balance between zoo-sanitary technical experts and laboratory scientific experts.

EUFMD should focus on the protection of the European countries, through activities to support them and through developing activities in the neighbouring regions/countries to Europe, such as the Caucasus Region, the Middle-East/Central Asia and Northern Africa.

The work in these neighbouring regions is indispensable but in addition, and considering the necessity to improve the information on the virus circulation in the developing countries (epidemiological information, virus strain identification), EUFMD should link with the laboratories and field services, promote the exchanges of strains and the participation of

researchers and experts of the developing countries to the international fora (particularly the different workshops and conferences organised by EUFMD), but without EUFMD implementing control actions in these regions.

Actually, EUFMD should play a real role of an “FMD Observatory” and should give more support to experts and researchers from the regions where the disease exists. This should be done through improvement of experts and researchers exchanges and, support from specialised OIE and FAO Reference Laboratories and Collaborating Centres, in order to increase the epidemiological situation knowledge, including virus identification. One of the major stakes is to build a common understanding of FMD disease prevention and control policies and to improve the quality and transparency of the information for better monitoring of the situation, with early warning, detection, reporting and response. To reach these goals, it becomes indispensable to bring the scientific and expert community from the Developing World to the international arenas.

Concerning the functioning of the EUFMD bodies and mechanisms, there is a need to find ways to increase the participation of the members of the Executive Committee. An evolution of the functioning of EUFMD could be considered with, for example, less meetings, replacement of some of them by Video conferences or Teleconferences, organization of meetings with the 3 or 4 main actors to replace some of the Executive Committee meetings, or back-to-back meetings. A greater involvement of deputies to members of the Executive Committee in the work of EUFMD would also benefit to EUFMD activities and to the Country members.

5 – Conclusions

EUFMD Commission should continue to play in the future an important role as a regional organization and due to the worrying situation, particularly in the developing countries, EUFMD should become a real “observatory” on the global situation of FMD. EUFMD will continue to work in close collaboration between the European countries, FAO, OIE and EC. Focus remains on the protection of the European countries and on the region bordering Europe but there is also a need to follow the situation in the developing world where the disease is still present and where there is clear evidence of risk. There is also a need to prepare a mid-term strategic plan and to revisit the functioning rules of EUFMD.

Outstanding Contributors
1954 - 2004

As part of events to mark the 50 years of the FAO Commission for the Control of Foot-and-Mouth Disease in Europe (EUFMD Commission), 25 individuals and 5 institutions will be presented with medals for their outstanding contributions in the fight against foot-and-mouth disease in Europe over the past half century. Nineteen awards go to individuals for their outstanding scientific and technical contributions and six are given for outstanding effort towards the control of the disease in Europe. The medals will be presented at a ceremony on Friday 11th June in Dublin.

The selection criteria for the awards to scientists were the number of nominations received following a poll of the scientific community, the service to Europe through the EUFMD Commission on technical matters, and the extent of the contribution made to solving the most significant technical issues and practical concerns during the 50 year battle to control the disease in Europe. The medals were given for work in the improvement of vaccines and diagnostic tests, on the epidemiology of the disease and the risk for Europe, and for efforts to promote the uptake and use of new research findings in policy for disease control.

The Commission, in making these awards, recognises that the successful control of FMD, in Europe could not have been achieved without the far sighted support of the major countries for national institutions engaged in FMD research, and that individual awards should also be considered to honour the laboratory and team behind the effort. It also recognises that a number of outstanding individuals, whose work was of the first level of importance in the actions against FMD in Europe and in the development of improved control methods, are no longer alive.

A further five awards were made to laboratories whose past and present staff were considered to play very significant roles, proving a leadership role at various stages in the history of control in Europe, and providing a much needed service and assistance in disease control with parts of the world whose FMD situation provided a major threat to Europe.

For outstanding contributions to development of new vaccine production methods, with impact on availability of vaccines in Europe and worldwide, and for services to international control of FMD:

Noel Mowat (retired)	United Kingdom, Pirbright Laboratory, Guildford, Surrey
Paul Capstick (retired)	United Kingdom, Pirbright and Wellcome Laboratories

For outstanding contributions to development and delivery of improved vaccines, and in the development of vaccine banks for the safeguarding of Europe in emergency situations, and for services to international control of FMD:

Michel Lombard (retired)	France, Lyon
Joergen Lei (retired)	Denmark, Lindholm laboratory
Gian Franco Panina (retired)	Italy, Brescia

For outstanding contributions to development of safer and more effective vaccines, and for services to international control of FMD:

Simon Barteling (retired) The Netherlands, Lelystad laboratory
Hans Bahnemann (retired) Germany

For outstanding contributions to our understanding of the transmission and epidemiology of FMD across the world, and for services to international control of FMD:

Alex Donaldson (retired) United Kingdom, Pirbright Laboratory, Guildford, Surrey
Robert Sellers (retired) United Kingdom, Pirbright Laboratory, Guildford, Surrey
Paul Suttmoller (retired) Netherlands

For outstanding contributions to the monitoring of the spread of FMD virus infection and the risk for Europe:

Nick Knowles United Kingdom, Pirbright Laboratory, Guildford, Surrey

For outstanding contributions to the epidemiology of FMD infection and for services to control of FMD in south-eastern Europe:

Sinan Aktas Turkey, Ankara (SAP Institute)

For outstanding contributions to the improvement of laboratory diagnosis, technology transfer and international standards of diagnostic laboratories, and for services to the international control of FMD:

Emiliana Brocchi Italy, IZS, Brescia
Paul Kitching Canada (formerly United Kingdom, Pirbright)
Kris de Clercq Belgium, VAR, Brussels
John Crowther FAO/IAEA, Vienna (formerly United Kingdom, Pirbright)

For outstanding scientific contributions and leadership of FMD research in Europe:

Jaap van Bakkum (retired) The Netherlands

For outstanding contributions to FMD science and to the science-policy interface:

Reinhard Ahl (retired) Germany, Tübingen

For outstanding contribution to basic science of practical value to control of FMD in Europe:

Karl Strohmaier Germany

Awards for outstanding contributions to the work of the Commission in the control of the disease in Europe, and in neighbouring areas:

Tony Garland (retired)	United Kingdom
Nikola Belev	Bulgaria
Erik Stougaard (retired)	Denmark
G.M Boldrini (retired)	Italy, former Secretary of the EUFMD Commission
P. Stouraitis (retired)	Greece, former Secretary of the EUFMD Commission
Yves Leforban	France, former Secretary of the EUFMD Commission

Institutional awards – for outstanding contribution to FMD control in Europe, through leadership in technical fields , and for provision of services which have assisted the control of the disease in parts of the world where the FMD situation provided a major threat to Europe:

World Reference Laboratory for FMD, Pirbright, United Kingdom
Friedrich Loeffler Institute, Insel Riems, Germany
Institut Français pour la Fièvre Aptheuse (IFFA-Merieux), Lyon, France
All Russian Institute for Animal Health (ARRIAH), Vladimir
Instituto Nacional de Investigaciones Agrarias (INIA), Madrid, Spain

Update on the FMD risk situation – with particular reference to coverage provided by the antigen banks

D J Paton, FAO World Reference Laboratory, Institute for Animal Health, Pirbright, UK

During 2003 and the first half of 2004, FMD has remained largely confined to traditionally infected areas. There have not been outbreaks affecting officially FMD-free countries that did not practice vaccination. However, outbreaks have occurred in FMD-free zones which did not practice vaccination (Botswana), in zones that were free with vaccination (Argentina) and in regions where FMD has not been shown to have been recently circulating (Libya, Russia, Mongolia). Most of these have been brought under control. All other reported outbreaks have involved countries in the Middle East, Asia, Africa and South America, in areas where FMD was already endemic.

Four hundred and seventy-five samples from 19 countries were submitted in 2003 to the WRLFMD for virological examination (including samples collected in previous years). Despite an increased effort to solicit submissions, the number of samples submitted in the first half of 2004 was rather low at 66 from only 5 countries. The cost and difficulty of sending infectious goods by air remains a considerable constraint. However, a large consignment of additional FMD viruses isolated in the last three years in southern Africa, has been received from the Botswana Vaccine Institute. No marked change has been observed in the geographic distribution of FMDV serotypes, except that there are unofficial reports of type C in Kenya, Ethiopia and Pakistan that need to be further investigated. The majority of isolates have been of serotypes O and A, and point to the continued occurrence of a large number of topotypes and strains. The A Iran 99 strain has re-emerged in Turkey in 2003. Serological matching tests suggest that available vaccine reserves for serotype O are still appropriate, but as in previous years, serotype A viruses from the Middle East and Asia exhibit considerable antigenic variation. The strains circulating in Iran and Pakistan are poorly matched by traditional vaccine strains such as A22 Iraq, but some newly evaluated vaccine strains show promise. Vaccine recommendations for antigen banks have been reviewed at the Research Group Meeting in Gerzensee, September 2003. More research is needed to standardise, validate and improve vaccine selection methods.

The current work of the WRLFMD is mainly focused on identifying and characterizing the variety of FMD viruses circulating in the world i.e. hazard identification. There is a need to combine this information with additional epidemiological data, for example on animal trade, in order to better define the actual risks posed by particular outbreaks.

Country Report of Turkey

Dr Nihat Pakdil, Director General, General Directorate of Protection & Control, Turkey

1. FMD situation in Turkey in 2004

1.1. Disease situation

Although the disease is endemic in Anatolia Region, FMD outbreak has not been reported in Thrace Region since June 2001. Two serotypes, O and A, have been circulating in Anatolia Region. Outbreaks due to type Asia 1 have not been reported since April 2002 in Turkey.

In order to prevent the entrance of new virus types into Turkey, a surveillance programme has been introduced in the south eastern border regions. Also the restriction of animal and animal product movements, quarantine, intensive vaccination programmes and active monitoring and surveillance programmes have been introduced. A vaccination campaign is carried out for bovine animals twice a year. In case of outbreaks, ring vaccination programme is applied in the focus. Due to the insufficiency in the vaccine production and unwillingness of the farmers, vaccination of the sheep cannot be carried out under a nationwide programme. Diagnosis, research and vaccine production services are carried out by the Foot-and-Mouth Disease Institute located in Ankara.

In 2003, a total of 51 FMD outbreaks were reported, 34 due to type O and 17 due to type A.

In the first five months of 2004, 34 outbreaks were reported, 24 due to type O and 10 due to type A. Detailed figures of FMD outbreaks in 2004 are given Table 1.

Table 1. Detailed figures of FMD outbreaks in 2004

Month	Outbreaks				Susceptible		Cases		Death	
	Type				Bovine	Ovine	Bovine	Ovine	Bovine	Ovine
	O	A	Asia 1	Total						
January	4	1		5	367		85		4	
February	7	3		10	76		47	36	8	
March	2	3		5	147	4	29			
April	6	1		7	404		195			
May	5	2		7	2034	200	85	400	8	
Total	24	10		34	3028	204	441	436	20	

1.2. Vaccination programme in 2004

Mass vaccination policy is the main element of the control programme of the disease in 2004. Vaccination programme for 2004 is as follows:

- Trivalent vaccine, consisting of O1 Manisa+Aydın 98 (with the homologue A Iran 96) +Asia 1), produced by the FMD Institute will be used in the campaigns.
- Two round mass vaccination campaigns, in spring and in autumn, is planned to be carried out for large ruminants. The target of the vaccination campaign is the vaccination of at least 80 % of large ruminants nationally.

- Spring vaccination campaign, between March-April
- Autumn vaccination campaign, between September and October

- A mass vaccination campaign was carried out in spring (February, March and April) for small ruminants in Thrace and Marmara Regions. The exercise has been completed.
- Strategic vaccination will be carried out in some provinces located in the Black Sea Region.
- Application of ring vaccination around the outbreaks.
- Applying of vaccination strategy is planned to start from border regions and continued towards internal regions of the country.

The Spring vaccination campaign was carried out between 15 March and 15 May 2004.

In the framework of the vaccination campaign 87 % of large ruminants and 91% of small ruminants in Thrace Region and 84 % and 85% of programmed large and small ruminants in Anatolia Region were vaccinated respectively. Spring vaccination figures are given in Table 2 and 3 as follows:

Table 2. Vaccination figures for the first round of 2004 in Turkey

Region	Vaccination programme of animals		Vaccination			
	Large rum.	Small rum.	Large rum.	%	Small rum.	%
Thrace	347152	550 708	301 595	87	499 980	91
Anatolia	6.313.218	1.549.728	5.271.026	83	1.277.797	82
Total	6.660.370	2.100.436	5.572.621	84	1.778.717	85

Table 3. Vaccination figures for the first round of 2004 in Thrace

Province	Vaccination programme of animals		Vaccination			
	Large rum.	Small rum.	Large rum.	%	Small rum.	%
CANAKKALE	9.150	60.000	8.464	93	59.889	100
EDIRNE	127.152	186.188	107.756	85	173.079	93
ISTANBUL	40.900	34.500	40.166	98	32.873	95
KIRKLARELI	63.500	125.200	61.182	96	118.504	95
TEKIRDAG	106.450	144.820	84.027	79	116.575	80
Total	347.152	550.708	301.595	87	500.920	91

2. Sero-survey in 2004

Following the spring vaccination a sero survey is planned in Thrace region to determine immunity level of animals vaccinated by trivalent FMD vaccine and monitor antibodies against non structural proteins (NSP).

Another sero survey is carried out in order to monitor antibodies to non-structural proteins (NSP) in small ruminants in provinces among in the eastern and south-eastern borders.

3. Other Control Measures

- Restriction of animal and animal product movements and quarantine measures will be carried out as applied in the past.
- Infected animals will be slaughtered and, compensation will be paid in Thrace Region.
- A surveillance zone will be established and a monitoring programme will be introduced in the south eastern border regions.

Report of activities conducted under FAO Project TCP/RER/2903: Strengthening active surveillance for Foot-and-Mouth Disease (FMD) and other exotic diseases in Thrace region

Keith Sumption, Secretary EUFMD Commission

Summary

The regional technical co-operation project (TCP) was initiated with a project co-ordinators meeting in Ankara in October 2003, at which the workplan was approved with some revisions, mainly concerning capacity and training surveillance for insect vectors of bluetongue.

The meeting agreed that higher importance should be placed on establishing capacity for surveillance for bluetongue and vector activity in Thrace region and other parts of the Aegean and Mediterranean coast, and this is recognised by the revision of the workplan and budget revision to support purchase of light traps and provide additional training in the field (in Greece) in *Culicoides* monitoring.

The work programme adopted in October 2003 has been followed and all workshops and activities have been so far completed to schedule.

The activities conducted to date are:

1. Training in FMD investigation and active surveillance, Athens, December 2003.
2. Training in FMD, Bluetongue, PPR and *Culicoides* sero-diagnostic, molecular typing and identification techniques.

Two persons from Greece, Bulgaria and Turkey participated in study tours of 21 days duration at the Institute for Animal Health, Pirbright. In addition a second study tour for virologists from the Etlik Institute, Ankara on bluetongue typing and vector identification for one month.

3. Workshop on spatial epidemiology, Veliningrad, Bulgaria, 17-21 May 2004

Led by a FAO consultant (Dr Siddig), training for two participants from Turkey and Greece and four from Bulgaria in use of GIS to prioritise disease surveillance based on risk factors for disease and vector presence, use of GIS programmes for collection, entry, analysis of data.

4. Provision of sero-diagnostic kits (Greece, Bulgaria) and sero- diagnostic kits, antisera for FMD typing and small equipment for SAP Institute (FMD) and Etlik institute (PPR, BT), May 2004 ahead of main period of anticipated use.

Work programme June onwards -2004

Training (two persons) in Greece in monitoring of *Culicoides* risk (vector distribution and activity), 21-25 June. Thereafter Turkey should be in a similar position of technical capacity to initiate *Culicoides* monitoring to that of Greece and Bulgaria. Kits for BT serology have been provided in Thrace region to enable sero-surveillance in animals sampled for sero-monitoring for FMD.

Planned NPCs meeting in Edirne in Turkey in August 2004 to review results, especially situation with BT and Culicoides monitoring.

Providing that no major disease risk is detected or occurs to change the programme, the results will be discussed at the Tripartite meeting in Bulgaria in October 2004.

In advance of the final NPC meeting in December or January it will be necessary to clarify the options for major project development for the region, linking with other initiatives and plans, particularly in relation to:

Progressive control of FMD/ Development of zonal freedom in Turkey over the next 5-10 yrs.

Progressive control of PPR in Turkey.

Surveillance for entry into eastern Mediterranean/Aegean of BT and other vector borne diseases.

Background from TCP/RER/2903 project document, July 2003

II. OBJECTIVES OF THE ASSISTANCE

The overall objective of the project is to strengthen the national and regional capacities for active surveillance. Such surveillance is essential for long-term prevention of TAD emergencies and the development of disease free zones.

III. PROJECT OUTPUTS

The expected outputs of the project are:

- Regional harmonization of FMD and BT disease investigation and diagnostic methods;
- Regional communication and collaboration with respect to transboundary movement of FMD and other epidemic diseases enhanced;
- Capability to use spatial mapping of disease vectors in planning surveillance and control enhanced in each country;
- National surveillance programmes and contingency plans, in each country, revised to include the new active surveillance response capabilities;
- Capability to identify foci of virus infection through serological testing and epidemiological analysis for FMD and bluetongue in Turkey enhanced;
- Establishment in Turkey of capacity to monitor impact of vaccination programmes against FMD sufficient to enable timely reporting;
- A large investment project proposal for establishment of major TADS disease free zones in Turkey, developed and ready to be submitted to donors.

IV. WORK PLAN

Month 1: Appointment of the National Project Coordinators (NPCs) and conduction of NPCs inception meeting.

- Month 2: Study tour for six experts (two from each country) in FMD and other exotic diseases virus diagnosis and typing, serological tests (including NSPs) and their interpretation in identifying foci of infection, and virus characterization techniques at IAH Pirbright Lab., UK.
Procurement of equipment.
- Month 3: Regional workshop on Active Surveillance.
Study tour for one Turkish expert on Rapid Diagnosis on PCR (BT and PPR), and BT vector collection and identification at IAH Pirbright Lab., UK.
Identification and registration of ruminants in Thrace region of Turkey and selection for serosurvey (*).
- Month 4: Collection of the blood at day 0 and vaccination against FMDV 01, A Iran and Asia 1 in Turkish Thrace according to the vaccination programme(*).
These sera will be used for testing for FMD (NSP antibody) and for other exotic diseases. Active surveillance principles will be applied to investigating positive serological results, to identify or refute the presence of infection and FMD carriers condition in Thrace region. The surveillance will also evaluate the use of the animal identification system for recent animal movements. Follow-up samples will be collected and tested.
- Month 5: Regional workshop on Spatial Epidemiology.
Blood sampling in Turkey for evaluation of vaccination efficiency and for surveillance for evidence of infection. ELISA testing for vaccination titres.
Sero-surveillance for BT and other TAD according to risk, in regions bordering Thrace province of Turkey. Analysis and evaluation of the surveillance results (*).
- Month 6: Assimilation and evaluation of information and lessons learnt from active surveillance and sero-monitoring for FMD and other TADS.
- Month 7: Installation of GIS software and training in georeferencing of further administrative regions of Turkey. Creation of GIS layers for Thrace region - district and village boundary shape files (Turkey).
- Months 8: Development of BT vector risk map for Thrace region, including potential source regions on Asiatic side of the Sea of Marmara/Aegean region.
- Month 9: National workshop on spatial epidemiology and disease risk (Turkey).

Note: () Activities conducted by the Ministry of Agriculture of Turkey.*

- Months 10-11: Targeted sampling for BT vectors and exposure, in high risk areas identified through spatial mapping. Sampling for evidence of exposure to FMD or other TAD, stratified by putative risk factors and through spatial analysis (Turkey).
- Months 12-14: Evaluation of the surveillance results (Turkey).
- Months 15-16: NCPs final meeting.

Activities/Outputs/Inputs	2003										2004										2005	
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18				
Calendar (2003-2004)	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2				
ACTIVITIES																						
Community awareness (National activities)																						
Appointment of NPCs and NPCs inception meeting		1																				
Study tour for six experts (two from each country) for FMD and other exotic					2																	
Regional workshop on Active Surveillance				3																		
Study tour for one Turkish expert on Rapid Diagnosis on PCR (BT and PPR)						4																
Serosurveillance in Turkish Thrace Region										5												
Diagnostic kits						6																
Regional workshop on Spatial Epidemiology								7														
Installation of GIS software and training										8												
Analysis and evaluation of the sero-surveillance for FMD and other TAD in Turkey										9												
Supply light traps																	10					
Training in Greece for Culicoides trapping										11												

Activities/Outputs/ /Inputs	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18
Calendar (2003-2004)	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
Targeted sampling for BT vectors and exposure								12										
Coordinators and experts meeting and work in Edirne, Turkey												13						
Assimilation and evaluation of information and lessons												14		TP Meeting				
National workshop on spatial epidemiology and disease risk (Turkey)															15			
NCPs final meeting																16		

1. 9 October 2003 already done	2. 11 January 2004 in Pirbright Lab., UK	3. 7-13 December 2003, in Greece, 2 Vets for each country 3 Vets?
4. February 2004, in Pirbright Lab. UK 1 Vet. Turkey	5. Activities conducted by MARA of Turkey	6. Deadline to inform kit specifications to FAO/EUFMD
7. 10-20 May 2004, Bulgaria, 2 Vets for each countries 3 Vets?	8. GIS, Software Ankara/Turkey	9. Before first week of August 2004, Sap Institute and Etilik CVCRI, Turkey
10. FAO/EUFMD provide the light traps.	11. Two experts from Turkey to participate the course on BT Vector for 10 days in Greece, between 15 to 30 June 2004 Dr. Patakakis inform	12. After first week of August 2004.
13. First week of August 2004 in Edirne, Turkey Dr. Tufan and Dr. Patakakis ?	14. In the last two weeks of November 2004	15. In the last two weeks of November 2004
16. 5 days in 5-20 December 2004 or later		

Field testing of draft guidelines for FMD outbreak investigation

Dónal Sammin, APO, EUFMD Secretariat

The EUFMD Secretariat conducted a mission to Eastern Anatolia in July 2003 to identify strengths and weaknesses in surveillance for FMD. In the report of that mission it was recommended that guidelines for FMD outbreak investigation (and the forms used to record information during such investigations) be revised to allow for backward and forward tracing from outbreak locations and that a pilot study be devised to allow for practical application and field testing of the revised guidelines and forms. Therefore, participants from Turkey and other countries at an FAO-EUFMD training workshop (Athens, December 2003) discussed the steps that need to be taken when investigating FMD outbreaks and the information that needs to be captured for tracing dangerous contacts. In addition, a pilot study has been proposed, as outlined at the 69th Session of the EUFMD Executive Committee (Orhid, October 2003) and an application for financial support for same has been submitted to DG-SANCO; an estimated \$130,000 being required for implementation of the complete study. However, funding for the pilot study has still not been approved by DG-SANCO.

The first step in the proposed pilot study is to assemble an investigative team (comprising local veterinary officers and veterinary expertise from Ankara and from overseas) at an FMD outbreak location in Anatolia to implement the revised procedures agreed upon at the workshop. This team would establish a local disease control centre in the district (MARA) office from which to co-ordinate field activities; field investigations being conducted at the location of the primary outbreak and then at other locations to which contacts are traced. Should we proceed with this first step in anticipation that funding for such a study will eventually be provided by the EC? The following points should be taken into consideration in reaching a decision:

- The timetable and inputs required for this initial visit were discussed with the Turkish participants at the Athens workshop. It was agreed that such a visit would ideally take place during the early summer months and the Irish Department of Agriculture will provide an experienced veterinary inspector to participate in a visit conducted in 2004.
- In advance of a visit, further discussions between GDPC and the EUFMD Secretariat would be required to finalise the drafting and translation of guidelines and forms. Other preparatory steps such as purchase of materials, assembly of sampling kits, arrangement of travel and accommodation and discussion of biosecurity issues should also be completed in advance of a visit to ensure the most efficient use of time and therefore minimise costs. In addition when a decision has been taken to travel to a particular outbreak location senior management of MARA at provincial and district level should be informed and their co-operation sought to ensure that office facilities (with fixed-line telephone and internet connections), fuelled vehicles and experienced staff are available.

Proposed itinerary of visit

1. Establish LDCC (assemble all information & maps available at district level)
2. Conduct investigation at primary outbreak location (using revised procedures/forms)

3. Prioritise follow-up investigations at other locations (= tracing contacts) including the possibility of a follow-up visit to a marketplace.
4. ± Laboratory involvement: If lesions are not apparent in animals at outbreak locations (because of the delay between when an outbreak is reported and when the investigative team is assembled at the outbreak location) serum collected from a random sample of cattle and sheep (stratified by age) could be tested for the presence of FMDV-NSP antibody. This would only be of practical use in contact-tracing if next day results can be provided
5. Daily briefing of all members of the investigative team; procedures and forms to be modified based on “field testing”.

Inputs by EUFMD

1. Travel and allowances (x two international participants)		\$5,000	
2. Travel and allowances (x three Turkish participants)		\$3,500	
3. Vehicle hire, fuel and insurance (x1)		\$ 700	
4. Mobile phone hire and charges (x3)		\$ 600	
5. Purchase of digital cameras (x3)		\$ 900	
6. Consummables:			
	Sampling kits	\$1,500	
	Protective clothing	\$ 500	
	NSP Antibody test kits	\$2,500	\$4,500

TOTAL **\$15,200**

Expected Outputs

- Revised procedures and forms for FMD outbreak investigation, “field tested” and disseminated by EUFMD (published on the website and on CD-ROM)
- Practical hands-on experience gained by local veterinary staff in tracing (and “on the job” training provided)
- Photographs and video footage for revision of the EUFMD website (web-pages on diagnosis of FMD)
- ± assess the feasibility and cost:benefit of implementing further steps in the pilot study
- ± data and sera for field evaluation/validation of NSP antibody ELISAs.

Report of the EUFMD-FAO/OIE/EC Tripartite meeting on the technical support for control of foot-and-mouth disease in the Caucasus region

15 March 2004

FAO Sub-Regional Office for Central and Eastern Europe, Budapest, Hungary

The meeting was held in English and Russian

Item 1. Opening remarks

The President of the European Commission for the Control of Foot-and-Mouth Disease (EUFMD), Dr. Karen Schwabenbauer, welcomed all the participants to the meeting. She was particularly pleased to note the participation of four of the five invited countries, from Turkey, Georgia, Armenia and Azerbaijan, the OIE (Prof. Belev), the European Commission (Dr Füssel), and the OIE Regional Reference Laboratory at Vladimir, Russian Federation (Dr Zakharov).

Dr Leos Celeda, on behalf of the FAO Sub-regional Representative extended the greetings to the participants and indicated that the location of the meeting, in the FAO Offices, was symbolic of the expanding activities of FAO in support of countries in the Caucasus.

The Agenda was adopted as proposed.

Item 2. FMD risk situation in the region, 2003-2004

2.1 Report of the OIE regional reference laboratory

Dr Zakharov summarised the FMD situation in the last 10 years in CIS countries, with focus on the Caucasus in his report (Appendix 1). The Russian federation considers the threat of FMD on the southern border to have been very high through most of this period, necessitating significant annual expenditure to maintain a buffer zone to protect the territory. Annual immunisation programs use about 9 million doses of vaccine, eight million with bivalent (AO) and one million with monovalent (type O), involving 27 regions. In five regions serological surveillance is conducted, with 1500 samples tested to assess population immunity and evidence of virus circulation.

He emphasised the threat of extension of infection from Central Asian countries (Kazakhstan, Kirghizstan, Tajikistan, Turkmenistan, Uzbekistan) where FMD type O had appeared endemic since 1994, but dramatic worsening of the situation had occurred in 2003, when unofficial information indicated an extending problem, later shown to involve incursion of an exotic virus (Asia-1). Unofficial information and samples delivered to ARRIAH gave evidence of Asia-1 on territories of Kirghizstan, Kazakhstan and Uzbekistan, creating a high risk situation for neighbouring free countries. His assessment was that there exists a real threat of type Asia-1 introduction from the Central Asia Region into Europe through the territory of Russia. As a consequence, he proposed:

1. that the buffer zone in the Trans-Caucasus countries be continued
2. to widen and establish the buffer zone on the territory of north Kazakhstan with immunisation against type O and Asia-1 types.

Discussion

Dr Schwabenbauer thanked Dr Zakharov for the report. She considered it essential that made it be understood that the Tripartite meeting of 1st November 2003 had not agreed that vaccine should be supplied for the buffer zone in the Caucasus in 2004. The meeting had agreed that support for disease control measures in the Caucasus was very hard to justify when essential information is not made available to the OIE and international partners in the Tripartite group in timely manner. Therefore the support in 2004 should be given to rectify this situation, to improvement surveillance, and to strengthen rapid detection and control of any incursions.

The role of ARRIAH in gaining additional disease information was discussed by Drs Zakharov, Füssel and Belev. Inspection visits can prove fruitless since countries can easily hide infection. Russian inspectors visiting Kazakhstan had requested to visit particular oblasts but were taken to others. Dr Belev indicated ARRIAH were expected to provide all information to OIE even if unofficial.

Dr Zakharov outlined how ARRIAH provides diagnostic reagents to the CIS countries and experts to assist sero-monitoring, but the main issue that required to be addressed is shifting attitude of Governments to reporting infection. Dr Belev emphasised that OIE members must adhere to their obligations to avoid endangering their neighbours. Seven years previously, in Moscow, Prime Ministers of CIS countries had agreed to report all outbreaks, but compliance had not been achieved.

Dr Füssel proposed that the issue of import policy from infected or high risk areas, and the transport of such animals through Russia, should be discussed in the May meeting.

2.2 Risk situation relating to FMD in Iran, 2002-2003

Dr Sumption presented a summary of recent information on FMD in Iran (Appendix 2). He recorded his disappointment that the I.R of Iran had not responded to the invitations to participate¹, but had expressed interest in the EUFMD Commission working closely with Iran and the ECO countries in improving FMD surveillance.

In 2002-2003 a very high number of outbreaks were reported by Iran in the western provinces, close the borders with Turkey and the Caucasus. The number far outweighs the annual reported outbreaks in Turkey, and a high proportion of outbreaks are in the bordering provinces of East and West Azerbeyejan. The virus isolates types by Pirbright in 2003 do not include Asia-1, which supports the information received in 2002 that Asia-1 infection is now restricted to eastern parts of Iran. However, isolates from the two bordering Provinces were not available for typing, which therefore represents an important gap in prediction of suitable vaccines for neighbouring countries. The antigenic analysis from the WRL indicates that current A Iran 96 type vaccines, and O1 Manisa, should give satisfactory coverage. However, he considered that following the re-appearance A Iran 99 type in Turkey in 2003, it is tempting to speculate that this type may be persisting in "surveillance gap" areas in Iran, from which virus had not been typed.

The situation again emphasised the importance for the whole region of working closely with the Iranian authorities in FMD surveillance, and the need for implementation of the FMD surveillance project proposed to EC in 2003.

¹ Apologies were received by e-mail while the meeting was in progress on the 15th March

Discussion

In discussion, the importance of improving information exchange for FMD control in the border regions was confirmed by the participants. Of particular importance to disease control are outbreaks in provinces which share porous borders, and the risk of exotic virus types to the border regions. The meeting agreed information exchange for border regions based on monthly and emergency reporting system to the OIE should be developed, that would enable such important information to be rapidly available to Veterinary Services. It was agreed that EUFMD should develop the proposal, working closely with OIE. The meeting agreed that the proposal must be developed with full participation of the I.R of Iran.

The representatives of Georgia, Armenia, Azerbaijan and Turkey agreed to the principle of developing an improved information exchange on animal disease.

In summary, Dr Schwabenbauer proposed that a paper indicating what is proposed should be tabled for the meeting in May.

2.3 Situation in Turkey

Dr Musa Arik presented the situation report of Turkey (Appendix 3). In 2003 outbreaks caused by types O and A had occurred, but the situation with Asia-1 was favourable, with no outbreaks since April 2002.

In 2003, 78% of the projected population of large ruminants were vaccinated in spring and 70% in the autumn campaign. Sero-surveillance in Anatolia indicated that protective titres were present in 78%, 71% and 74% of cattle by LPB ELISA, at 30 days post-vaccination. Strategic vaccination (once yearly or non-vaccination) was carried out in the Black Sea region, including parts of Artvin province which borders with Georgia. This is because the risk situation is considered lower, because of the features of the animal production and marketing system.

Discussion

Dr Sumption welcomed the report and the improvement in the FMD outbreak situation, but requested that for future meetings a detailed account of FMD situation in Provinces neighbouring to Caucasus countries and Iran be given.

Dr Arik, in response to questions, indicated that 5000 sera had been tested for NSP antibodies, and that testing of non-vaccinated sheep was an alternative which they planned to utilise in the sero-surveillance in the south-eastern border region.

2.4 Armenia

The country report (Appendix 4) was delivered by Dr Tigran Gasparian. The FMD situation in the last 3 years was reported as favourable, with outbreaks in 2002 in Ashotsk which were controlled with the use of re-vaccination of cattle. For the last 9 years animals have been imported from Georgia but not from other countries in the region. Entry via Georgia therefore is a potential route of entry of infection.

In 2004 it is planned to use a trivalent vaccine in cattle against types A, O and Asai-1. All large ruminants will be vaccinated twice per year, in March/April, and October/November),

and young ruminants three times per year, with locally produced, lapinised vaccine. The non-vaccination of sheep and pigs was considered to leave a risk of epizootic occurrence and therefore Armenia wishes to vaccinate all livestock, and at the same time to apply sanitary controls and quarantine activities.

Discussion

The 2002 outbreak was detected in large ruminants but was considered to have spread from small ruminants. Pigs were not considered to be involved. The 2002 outbreaks occurred at an area close to the Georgian border. In discussion, some parties considered this could be evidence of circulation within the two countries, since the cases were in proximity but not immediately on the border, and further, no outbreaks in the immediately neighbouring Provinces of Turkey were ongoing at that time. In outbreaks of FMD, animals are isolated and treated.

In response to the question of ARRIAH, the lack of provision of vaccine by FAO could result in a deterioration of the situation, and they hope the decision will be reversed in Paris in May. Regarding legal instruments, there is no legal basis for payment of compensation and therefore the option to slaughter with compensation is not available.

Dr Sumption asked if Armenia was interested to receive assistance to develop the contingency plans for control of FMD. In response, long term (5 year) plans had been developed by ARRIAH for CIS countries but no mention was made of national plans for emergency response/outbreak management.

Links between the support given or planned under the EC Food Security Programme (FSP) and the Tripartite require to be improved. At present EUFMD has developed working contacts with the EC FSP to improve the synergy of operations, and the recent EUFMD Study Tour was developed after discussion with FSP experts.

Dr Belev raised the question of the long term plan proposed by OIE to the Tripartite meeting in 2002. In response Dr Sumption indicated that there had been no prior discussion with FAO or EC in 2002 before the meeting, the feasibility and fundability of the proposal was unclear, and it had not been clear who was expected to take forward the development of project documents. EUFMD had worked to try to find some funding mechanisms to support such a project, such as the outline project proposal developed in 2003 - for the Caucasus to fertile crescent countries.

2.5 Azerbaijan

Professor Safarov presented the report (Appendix 5). In relation to diagnostic facilities, he expressed his gratitude that through support of the Tripartite group three persons had received training in Turkey at the SAP Institute. Recently through co-operation with France/EC four others had been trained in different diagnostic methods. There remains a problem of lack of modern equipment; there is currently a plan to modernise 8 regional laboratories, but currently only one central laboratory is functioning.

Discussion

The control of animal movements across the borders was questioned. In response, some stretches of the border are considered to be controlled, and since Soviet times the border

region has been regularly vaccinated to maintain a buffer zone. His Government was concerned that success is only temporary, and the Asia-1 infection in 2001 had resulted in a serious concern to maintain protection. A national programme has not yet been possible since this requires adoption by the President. In the interim, they have made a list of recommendations undersigned by the responsible Ministries and Agencies.

The representative of Turkey offered to continue support through provision of training facilities.

Dr Schwabenbauer enquired on the status of the programme adopted for the CIS countries. Dr Safarov replied that the programme had been adopted by meeting of the heads of veterinary services, and adopted at Government level, but that to implement such a programme at national level had not yet been possible. To clarify the issue, Dr Zakharov suggested the document adopted was in nature a "framework" for FMD control, and that it was sufficiently flexible to take into account national characteristics, and the framework approach was not in contradiction with the additional inputs for countries so far discussed. Dr Zakharov agreed that this document could be sent to the EUFMD Secretariat.

Dr Sumption enquired if there were any provision in the document for a "vaccine bank" for CIS countries. Dr Zakharov supported the idea of a vaccine bank, and there exists agreement with Ukraine and Belarus to maintain a reserve of concentrated antigens, but not for other countries. He was enthusiastic towards the EC or FAO assisting to establish such a vaccine bank.

Situation in Georgia

The situation was reported by Dr Ramishvili (Appendix 6). In 2003 the budgetary support for FNMMD vaccination was insufficient for national the programme, and therefore after co-operation with the EUFMD consultant, areas had been identified for FAO/OIE/EC vaccine deployment in border zones, and other areas for vaccination with locally produced vaccine. However in 2003 the previous Government had utilised the budget support for salaries and not for provision of FMD vaccination. Therefore the lack of cases in Georgia in 2003 could be attributed to the vaccine provided by the Tripartite Group. The failure to conduct the national programme in 2003 was passed to EUFMD on formation of the new Government in 2004. The budget allocation for 2004, of circa US\$500,000 had not yet been passed by Government. He reported that they have 600,000 doses of locally produced A and O vaccine and was of the opinion that if they do not get a further 300,000 doses there will be FMD cases in the autumn. He considered that within the borders, type O was likely to be the responsible virus type, and Asia-1 would be an exotic type encountered in border regions. He expressed the gratitude of his Government to the provision of the EUFMD/EC training programme conducted in Sofia.

Discussion

Dr Sumption emphasised that the number of doses reported as available was twice the amount supplied by the Tripartite group (300,000) in 2003, and since Georgia did not report FMD within the country in 2003, the 600,000 doses should in theory provide an extended buffer zone compared to the situation in 2003, providing the locally produced vaccine as sufficiently potent. Therefore the argument for provision of additional vaccine at this stage was weak.

Dr Ramishvili indicated their concern to vaccinate against Asia-1 type. Dr Füssel stressed in response the need for vaccination to reflect the epidemiological situation and risk. Using vaccine where a need does not exist is wasteful of funds and is not sustainable.

Dr Sumption stressed the interest of the EUFMD Commission to assist countries to develop emergency response plans and to reduce dependence on mass prophylactic vaccination against virus types when the risk situation permits. For this reason the EUFMD Commission is particularly keen to assist development of surveillance and emergency response capacity.

Dr Füssel agreed and added that if Asia-1 was confirmed then the EC normally has sufficient reserves of vaccine to enable supply in about 4 days, enabling emergency vaccination campaigns to be conducted.

On the issue of the FMD control in autonomous republics, Adjara was said to be under central control, but this was not the case in Abkhazia and south Ossetia, but through the network of contacts, vaccines can continue to be supplied.

In summary, Dr Schwabenbauer concluded that improvement to the information base is really vital to give confidence of the countries to select the more cost-effective control measures, such as cessation of Asia-1 vaccination. Further, efforts to develop emergency response planning (contingency plans) should have a great advantage for the countries in reducing annual costs and enabling more cost-effective external assistance, and that the EUFMD should assist in this aspect.

Item 3. Report of ARRIAH on the surveillance and sero-monitoring of FMD control, 2003

Dr Zakharov presented the report of the surveillance and sero-monitoring conducted in 2003 to assess population immunity and presence of NSP positive animals, mainly conducted in the border (buffer) vaccination zone (Appendix 7). ARRIAH considered the supply of vaccine by FAO/tripartite group played a very important role in prevention of entry of FMD, and the sero-monitoring provided evidence of high rate of application and immunogenicity of the vaccine, although in a few areas, there were apparent failures in vaccination.

Discussion

Dr Füssel remarked on the very high proportion of NSP positive animals in some parts of the region, particularly in the border of Georgia and Armenia. By reference to the Annex 3.8.6 of the OIE Code, it is expected that countries will investigate in detail herds/holdings where positive samples are collected. Since the results can be interpreted as evidence of infection having occurred, the question of continuing virus circulation should have been addressed in a systematic way, for example through analysis of the age profile of positive animals. Dr Zakharov commented that because of lack of animal identification, they could not be sure of vaccination status of animals. In response, a further analysis of antibody profiles should indicate if NSP status correlates with high titres to particular virus types, and of titres attributable to vaccination responses. A critical analysis of NSP results in relation to vaccination with ARRIAH or lapinised vaccine is needed.

Dr Sumption agreed the results indicate a need for follow-up studies in the areas concerned, and areas that may have similar epidemiology, and therefore the training in Sofia had included discussion on these aspects. He proposed a follow-up should be supported under the

diagnostic support to the countries in 2004. He suggested that the NSP serology results can be interpreted in several ways. He considered the results do not fully support the pessimistic view of the ARRIAH report that the high levels of NSP antibody indicate problems with circulating virus and/or lapinised vaccines, since there are areas with no NSP positives that had apparently received lapinised vaccines, and in some areas positive animals were expected since these were purposively sampled where outbreaks had occurred one to two years before. However, a figure of 70% positivity in one area was difficult to reconcile with infection 12 months previously, because naive animals are normally recruited into a village/herd and should reduce the positivity rate, and additionally the Bommeli NSP test has a sensitivity of considerably less than 100%. The failure to collect age data for animals hindered analysis and the value of the exercise.

In conclusion, the report of ARRIAH was accepted, with reservations on the lack of collection of age information and the corresponding lack of critical analysis of the antibody profiles and data obtained that would assist resolving issues of virus circulation.

Item 4. Timetable for vaccination in the border regions, 2004

The Chairperson suggested this item had been discussed under item 2, the country reports. This was agreed.

Item 5. Use of FMD vaccines in the region, lapinised vaccine production and application

Dr Sumption inquired of the representatives of Georgia and Armenia if they were interested in assistance with vaccine quality assurance, with a view to technical support to identify what would be required in order to achieve international quality standards for FMD vaccines. If so, he suggested EUFMD might assist to arrange independent evaluation and follow up technical advice.

Dr Ramishvili indicated they were very interested in assistance in this area, and that the Government was ready to co-operate. Vaccine batches could be made available for external quality assurance (EQA). He requested EUFMD make a statement on the importance of external quality assurance, to guide national authorities.

The representative of Armenia agreed with the suggestion and invited specialists to visit the country to initiate the external quality assurance programme and to provide follow up advice to Government.

Dr Füssel stressed the importance of the process of EQA, and that selection of the batches for testing should be made by the institution conducting the independent trials.

In conclusion, the Chairperson welcomed the proposal and responses, and summarised the areas of agreement. The EUFMD would therefore begin arrangements, in full consultation with the representatives of the countries concerned. These arrangements should include the preliminary visit for discussions and collection of vaccine batches for EQA, a following the potency and safety tests the second visit to discuss results and advise on follow up.

Item 6. Laboratory services and surveillance

Dr Sumption summarised the recent support given by EUFMD through the Trust Fund with EC, for Study Tours for training in FMD laboratory methods for virus surveillance and

evaluation of vaccination campaigns. Six persons had visited Bulgaria for a three week study tour, and three persons from Azerbaijan had received training at the SAP Institute, Ankara. He recorded his appreciation of the fine work of the SAP Institute, Ankara and the National Veterinary Service, Sofia. Informal feedback from the trainers and trainees had been highly positive, and it was clear that much had been achieved in developing a supportive environment for information exchange to assist upgrading the FMD diagnostic methods and capacity towards international standards.

He reported that at the end of each Study Tour, an assessment was made of the required support to achieve transfer of technology into the laboratories of the three countries. The requirements and cost were very similar for each country, for the supply of essential small items of equipment, biological kits and reagents, with an estimated cost of US\$ 30,000 per country, to enable virus confirmation by ELISA, and the use of NSP tests to investigate virus exposure and potential circulation in vaccinated populations following the results obtained in 2003, and in high risk zones in the border regions.

The representatives of the three countries expressed their appreciation for the proposed support to the FMD diagnostic laboratories.

However, in the view of the EUFMD there remains a need for external laboratory services, particularly the use of the OIE regional reference laboratory at Vladimir for molecular and antigenic typing. EUFMD experts also considered that transfer of methods for assessment of antibody titres following vaccination was premature, and should await evidence of progress with other ELISA methods, and would require specific support. In the interim, external laboratories including ARRIAH should continue to assist in this.

In summary, the meeting agreed with the proposal for support for diagnostic laboratories and encouraged the rapid implementation by EUFMD.

Item 7. Status of proposals for longer term FMD control in the region

Dr Sumption reported that EUFMD had submitted proposals to the EC (DG-SANCO) for support to FMD surveillance in the I.R of Iran, and for outbreak investigation in eastern Anatolia in Turkey. These proposals should strongly assist in information exchange and thereby to manage the risk of entry of FMD from these countries. A response from DG-SANCO to these proposals had not yet been received.

He also reported that the FAO technical Cooperation project (TCP) for strengthening surveillance and laboratory diagnosis of epizootic diseases in Georgia, Armenia and Azerbaijan could not proceed until an adequate request for the TCP had been received from country concerned. FAO awaited a letter from one country in order to proceed. If a required form of letter could not be provided, FAO would proceed on the basis of the request from the other two countries.

Item 8. Any other business

Item 9. Date and location of next meeting

The 26 September was suggested, in Avila, Spain, prior to the OIE Regional Commission for Europe, 27 Sept.-1 October. Interpretation might be provided since Russian-English

translation will occur at the OIE Meeting. A firm decision to proceed on holding a meeting on the 26th was not made, but this should be resolved before or during the May meeting in Paris and confirmed thereafter.

Dr Schwabenbauer then closed the meeting, and expressed her great appreciation for the efforts of Leos Celeda and the FAO Sub-Regional Office in preparation of the meeting and of the follow on workshop, and thanked the participants for their contributions to the discussion. She assured those present the EUFMD Commission would work hard to ensure the implementation of the agreed actions, and wished the participants a safe onward journey.

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Workshop on FMD outbreak investigation
Budapest
16 – 19 March 2004

Extracted by EUFMD Secretariat from report of consultant, *N. Taylor, Veterinary Epidemiology and Economics Research Unit University of Reading, UK*

Summary and recommendations for revised procedures for the investigation of FMD outbreaks, with particular reference to the Transcaucasus and the Balkan regions

General recommendations

Thorough and timely investigations of outbreaks are necessary in order to identify and 'close down' sources of infection and to identify potential spread of disease. Investigations must be fully followed up until sufficient evidence is obtained to prove that the infection has been completely cleared.

Planning for outbreak investigations is thus an important component of contingency planning and emergency response planning for FMD. Detailed and careful planning, ideally with subsequent practice exercises, is needed to ensure that, when needed, investigations can be instigated and carried out rapidly.

The workshop should be seen as a starting point. The procedures discussed in the short space of three days need to be thought about and adapted to individual country's situations.

In particular, local 'emergency response plans' should be developed that define the roles to be fulfilled and contain details of how activities are to be organised, managed and coordinated – naming the people responsible at all levels of management. The value of this level of planning is evident from the experiences during the UK epidemic in 2001. In the time after that epidemic the UK state veterinary services has vastly revised the standing instructions documents for state veterinarians, as part of a comprehensive review of contingency planning.

It is recommended that one of the most valuable things that participants could do as a result of this workshop would be to review procedural instructions and data collection and reporting formats back home, so that when/if a disease emergency occurs all staff can quickly fulfill the necessary roles.

Attention should be given to the following issues:

1. Development of process mapping: Further development of these process maps is necessary in order to fully clarify who is responsible for the management, monitoring, coordination and implementation of each task. Essentially what are needed are local 'emergency response plans'. These are different from contingency plans. The national contingency plan is strategic – detailing the elements of disease control policy that must be carried out. Local emergency response plans are tactical – detailing how the elements of disease control policy required by the contingency plan are to be implemented. Local emergency response plans should be sufficiently detailed and up to date so that they provide clear instructions for immediate action – they must contain details of how activities are to be organised, managed and coordinated – naming the people responsible at all levels of management.
2. Development of procedural manuals: Countries should develop procedural manuals for field staff as part of the emergency response planning process. These manuals should include field guides for veterinarians describing the procedures to be followed at each stage of investigating a suspect case(s) of FMD. An example of such a guide, produced in Botswana, was available during the workshop, and photocopies were provided. The guide contains clear instructions for sampling animals, with brief text and photographs.
3. Development of forms and report templates: It is recommended that individual countries carry the process forwards through iterative drafting, discussion with data providers (field vets) and data users (HQ vets etc.) and field testing. This is how forms are being developed in UK. If the

development process is documented, the lessons learned in each country could be shared among all the participants of the workshop – it may even be advantageous for countries in the region to adopt similar forms and reporting formats. Many of the descriptions of key tasks associated with epidemiological investigation and tracing contained lists of questions to ask or information to gather. These lists can form the basis of interviews with key informants and also the basis of data forms or report formats. The lists as presented by the participants are more or less complete and it is recommended that these lists be reviewed and worked on – added to if necessary, so that they can be developed into good interview prompt lists.

Recommendations specific to the Transcaucasus

Countries in this region still have an extensive state veterinary service, but are subject to financial constraints (see comments by participants on routine vaccination). Countries in this region have fairly frequent outbreaks and are under constant threat of incursion from the Middle East and Central and Southern Asian countries. There is a need for more active surveillance at all times, not just at times of recognised outbreak. Any surveillance should take into account the background of prophylactic vaccination.

A regional approach to FMD control and outbreak response would be beneficial, incorporating the following features:

- a coordinated approach to vaccination – target on high risk external (to the region) borders and around transit routes;
- monitoring of routine vaccination (coverage and protection);
- more thorough investigation of outbreaks, with more emphasis on tracing forwards to give advance warning of possible spread within and across national boundaries (countries will need to share information on movements of animals and animal products);
- more thorough post-outbreak clinical and serological surveillance to verify that infection has been cleared (because of the use of vaccination it may be necessary to consider using NSP-ELISA);
- routine active surveillance (between outbreaks) – e.g. market surveillance, purposive sampling – in order to verify continued absence of disease.

Recommendations specific to the Balkans

Countries in this region have more 'stretched' state veterinary services, but enjoy a situation of freedom from FMD. A major threat in the region is that, should an FMD incursion occur the risk of spreading by movements of animals across borders through the region is high. The understanding and management of animal movements was a topic that participants frequently identified in the formal evaluation of the workshop as needing further discussion.

The countries in this region that have not already done so should aim to achieve official OIE recognition of FMD-free status. This will involve a satisfactory evaluation of the veterinary services.

Countries should follow the EU directives as a model for FMD response. Countries in the region are actively developing contingency plans, but attention should also be directed at developing the detailed emergency response plans for outbreak investigation and tracing. The particular challenges to be covered by these plans include:

- mobilisation of sufficient manpower at times of emergency; and,
- animal movement management and tracing of both animals and other potential carriers of infection (people, vehicles) – perhaps across borders.

Cooperation between countries in the region will be an essential part of emergency response in the Balkans.

Final words

The workshop was a small first step towards improved outbreak investigation. For several participants this was the first time they had thought about the topic in detail. As one participant commented in the formal evaluation, there is need to follow up this first step, perhaps in individual countries, with local

training, workshops and practical exercises, so that preparedness for outbreak response becomes more widely established in the veterinary services.

Objectives of the workshop

The agreed objective of the workshop was:

- to develop FMD outbreak investigation and tracing guidelines, with particular reference to the participating countries' situations;

Programme

- Tuesday - introductions
- each country's FMD situation and experiences of investigation
- Wednesday a.m. - review of outbreak investigation
- basic principles
- Wednesday p.m. - simulated outbreak/tracing exercise
- Thursday - simulated outbreak/tracing exercise continued
- develop outbreak investigation protocols ('process mapping')
- Friday a.m. - discussion of lessons learned and design of reporting formats

Participants

Country	Name	Title	Organisation
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Georgia	Mr Levan Ramishvili	Head of Department	Veterinary Department, Min. of Ag.
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Ukraine	Ms Valentyna Tytarenko	Deputy Head	State Department for Veterinary Medicine Min. of Ag. and Policy
U.K.	Mr Nick Taylor ²	Epidemiologist, Consultant	VEERU University of Reading, School of Agriculture, Policy and Development
	Mr Leos Celeda ³	Livestock Development Officer	FAO sub-regional office for Eastern and Central Europe
Italy	Ms Simona Sangiovanni ⁴		FAO – EUFMD

-
- 1 translator/interpreter
2 workshop co-facilitator
3 workshop co-facilitator
4 workshop assistant

Project Outline

Strengthening national and regional control of foot-and-mouth disease and other major transboundary animal diseases in the Trans-Caucasus

Summary

A three to five year programme is proposed to strengthen control of FMD, and other major trans-boundary diseases spread by marketing and movement of small and large ruminants, in the republics of Georgia, Armenia and Azerbaijan. The base for co-ordination of activities and communications would be expected to be in Tbilisi, Georgia, provided by the Government of Georgia.

The region has geographic and husbandry systems that favour regionalisation of control measures and disease risk, and potential for development of disease free zones in lower risk parts. Development of a zonal approach will require significant inputs to develop and establish surveillance and emergency response capacity commensurate with the objectives of regionalization and the evolving risk situation in the wider region, in particular risk of invasion of exotic virus types.

The principle inputs would be in human resources, in costs associated with workshops and training, in equipment inputs for upgrading epidemiology units and the national reference laboratories, and in supporting passive and active surveillance actions as required by the situation, and in establishment of capacity for emergency actions against FMD and other diseases. Animal identification issues also require to be addressed when formulating the project. It is anticipated that FMD vaccine for maintenance of the buffer zone from spring 2006 will be required.

A mission to develop a detailed project document, including the inputs required from donors and of recipient countries.

Background

The geographic situation, animal husbandry situation and history of FMD and other major diseases are summarized in other recent proposals, such as the FAO TCP document¹.

Factors affecting disease control options in the region include:

- cross-border trading and cultural links with communities in parts of Turkey and Iran endemic for FMD, SGP, PPR etc.;
- division of populations by geographical features – transversal mountain chains;
- invasion rather than persistence appears to be a feature of FMD epidemiology, but epidemiology remains unclear ; uncertain PPR and SGP situation;
- lack of service provision by Government in disease control, consequent lack of reporting of disease, under use of diagnostic facilities;
- presence of mountain chains (Turkey with western Georgia) or fences (Turkey-Armenia) reduce/restrict entry points of animals, favouring control; fewer restrictions in East Azerbaijan/Iran;
- uncertainty, lack of information and distrust of disease situation across borders has favoured retention of mass prophylactic, bi-annual vaccination;
- lack of contingency planning - slow transition from Soviet era, centralised planning of disease control;
- in the west, critical control points/risk points appear restricted to trans-humant, highland cattle/sheep systems associated in triangle where Georgia/Armenia/Turkey meet;
- lower risk parts exist – can be seen by the once annual or non-vaccination parts of the region (in Turkey and northern/western Georgia);

¹ FAO TCP/RER/2903, Georgia, Armenia, Azerbaijan. "Strengthening Transboundary Animal disease diagnosis, surveillance and control capacities". Submitted to FAO PRC May 2004.

- in the east, critical control points less clear - to be defined, potentially all border with Iran; small ruminant bias;
- cultural and political complexity; similarly animal movement patterns associated with husbandry, marketing chains require analysis to develop system of surveillance, control points;
- history of reliance on mass vaccination, at high annual recurrent cost, limited development of alternative emergency management systems;
- laboratories not equipped/resourced for required purposes, isolated; staff however responsive to training; use of laboratories hindered by current performance.

In principle, despite the known problems, there is clear potential for risk based management based on features of the geographical and livestock husbandry systems.

Further, there should be potential for development of DFZ in western Georgia, where in some parts vaccination has not been recently practised; zoning potential in Armenia and Azerbaijan.

The DFZ in western Georgia could be favoured if there were parallel commitment to further develop low risk FMD Provinces in Turkey on Black Sea Coast in a similar and contiguous DFZ.

Outline of potential project

Following discussions in Paris May 25th with Dr Ramishvili, CVO of Georgia, and also informally representing position of Armenia, and Dr Safarov, CVO Azerbaijan, principle elements of a project were discussed. The following project elements are in line with agreements reached:

- a 3-5 year programme of inputs
- a coordination centre based in Tbilisi, Georgia, with (international) project manager
- recipient countries to be Georgia, Armenia, Azerbaijan
- emphasis on strengthening passive and active surveillance systems, laboratory diagnostic services, establishing capacity to undertake good emergency management, co-ordination and monitoring of vaccination in order to obtain adequate immune barriers where required.

Objectives

- Establish risk based management of animal diseases.
- Reduced incidence and distribution of major TADS in each country, verified by surveillance programmes operating to European/international performance norms.
- Establish basis for trans-national disease free zones in lower risk parts
 - possible freedom from FMD of animal populations in parts of western/northern Georgia, and northern Azerbaijan, perhaps contiguous parts of Armenia.
- Secure free populations against entry of FMD from high risk zones.
- Co-ordination and monitoring of vaccination in order to obtain adequate immune barriers where required.

Expected Outputs

- Establishment of effective information sharing between countries, and with neighbouring provinces of Turkey, Iran, aiming at early notification and harmonised responses to disease risk.
- Establish effectively monitored surveillance and control (buffer) zones on borders with Turkey and Iran, with public relations component and the participation and support of key players in livestock sector.
- Maintenance of effective immune barriers in control zones for duration required.
- Operational and effective emergency plans for each major disease, backed with required legislative and economic support.
- Establish programme for development of DFZ in countries where Government commitment, interest of key players in livestock sector, and realistic potential exists.
- Information exchange and support for involvement in coordination meetings for Turkey and Iran.

Inputs

Expected inputs required:

- **Personnel** - Regional co-ordinator (...), consultants, support for national counterparts; high requirement of human inputs to drive process.
- **Information systems**; major investment is likely to be needed in support for epidemiological information systems, training and data management
 - laboratory support; exact requirements to be established
 - identify at start epidemiological situation with FMD, sheep and goat pox (SGP), PPR, and possibly others
 - establish subsequent monitoring as required
- **Financial support for surveillance and control programmes**; support to establish in high risk and border zones, surveillance and control programmes, with animal identification as required.
- **Financial** support for development /implementation/testing of contingency plans.
- Support to re-align regulatory framework to meet requirements of European norms.
- **Financial support to establish emergency vaccine reserve** (bank).
- Establish/strengthen monitoring system for vaccines; independent vaccine control facility, for locally produced or imported vaccines.
- **Procurement of vaccines** for buffer zone(s); purchased by tender on international market, compliant with international standards and with post-vaccinal surveillance.
- **Possibly; financial support** for information systems as required for movement control (border regions or wider) - herd/owner/animal animal identification.

Modalities - Options

Option 1: Co-ordination of surveillance and emergency response planning; vaccine and control costs not included.

Inputs

1. Co-ordinator and associated costs
2. Consultants and external training course inputs
3. Contracts -reference laboratories support
4. Office and computing, training and recurrent costs of epidemiologic-information systems
5. Surveillance – training, sampling and surveys
6. Laboratory upgrading, recurrent diagnostic costs for FMD and other TADS
7. Development and testing of CPs, implementing, evaluating -carrying on from FAO TCP progress

- excludes support for major costs of vaccines, major infrastructure purchases.

Advantages

- lower cost/possibly earlier implementation; could fall under EC/EUFMD implementing agreement
- should rationalise calls to donors – according to progress in emergency preparedness.

Disadvantage

- management and planning difficulties - lower assurance on the delivery of other inputs over project may constrain development of control and free zones.

2. Option 2: Co-ordination of surveillance, emergency response planning, including buffer zone vaccination and other inputs:

- as above, plus:
- supply of vaccine for buffer zone through duration of project (circa 1.5 million cattle doses /yr)
- costs of contract for emergency vaccination bank and replenishment, assuming bank drawn upon for one emergency per country per year (assume initial bank of 1 million doses, Asia-1 plus another A strain, and costs of additional 300,000/yr replenishment).

3. Additional elements to be decided

Inputs relating to animal identification systems, and improving system for movement controls, farm registration and information systems etc. Animal identification feasibility and costs must be considered in costs of developing programme for border surveillance and control.

Summary Table/timetable

The following table summarise categories of inputs that will be required under the project, assuming FAO TCP inputs in 2004-2005, and EC supported vaccines for the buffer until end of 2005.

	2004	2005	2006		2007		2008		
Demi-year	2	1	2	1	2	1	2	1	2
FAO TCP									
Cont Plan dev.	yes	yes							
Lab support (RP surveillance)	yes	yes							
Lab support-FMD (EC funded)	yes	yes							
Inf. Systems	yes								
EC support-vaccine									
EC- buff zone (tendered)	yes	yes	??	??	??	??			
EC- buff zone (other- bank)	yes	yes	yes						
Project									
Coordinator Public awareness		??	yes	yes	yes	yes	yes	yes	
Cont Plan dev			+++	++	+	+	+		
Lab support			+++	+	+	+	+		
Surveys			++	++	+	+	+		
Inf systems			+++	+++	+++	++	++		
Vaccine bank				+++	+	+	+		
Buffer zone vaccines				yes	yes	yes	yes	??	

Proposal

- Project Formulation Mission, September 2004; to undertake detailed project design

EUFMD led, with prior agreement of potential donors for TOR and team composition.

Draft Terms of Reference:

- Prepare detailed proposal, indicating inputs and commitments, required of national government and project donors, delivery expectations, ToR of international and national staff, consultants etc.
- Specifying activities, outputs for the inputs identified, and the assumptions made in project design.

Progress Report of the FAO EUFMD RG ACTION PLAN 2003-2005

Kris De Clercq

Progress reports on each of these items will be required at the Closed meeting of the Research group in 2004, and also where indicated below. Underlined person is designated as leader, alternate in italics.

■ Assisted delivery for samples from third countries

Action: EUFMD secretariat (report, each Executive Committee Session)

Progress: FAO EUFMD LOA with and Mission to Zimbabwe and LOA with Israel.

On schedule.

■ Vaccine selection: invite comments from vaccine manufacturers and organise workshop (Jan-Feb 2004) for regional reference laboratories, etc.

Action: David Paton/ EUFMD secretariat.

Progress: Contacts with Companies and EU Coordination Action.

Little delay.

■ Establish guidelines on post-vaccinal surveillance (by April 2004, ahead of OIE in May and Contingency Planning workshop, 19-23 April 2004) (estimate likely within herd prevalence and definition of minimum requirements for NSP test performance). Interim steps: plan and costs (mid-October). First draft end of November/beginning December. Activities as required.

Action: François Moutou/Aldo Dekker/ Alf Füssel/Matthias Greiner/Andrés Gil

Progress: Cordoba WS: Post-outrbreak and post-vaccination serosurveillance – A. Dekker

On schedule.

■ Laboratory sero-diagnostic capacity – guidelines (by April 2004)

Action: EUFMD secretariat

Progress: Cordoba WS: scaling up laboratory sero-diagnostic activity – Dianne Clery

On schedule.

■ Phase XVIII WRL report to RG session 2004 & plan for next phase

Action: c/o David Paton (*outline plan of John Anderson, WRL*)

Progress: E-mails sent out May 2004 and samples sent out June 2004.

Delay.

■ Comparative evaluation of candidate DIVA tests, 1) with sera from experimental infections, with Panaftosa 3ABC ELISA/EITB , deadline 3 months after receipt of kits, and 2) field use in regions with FMD outbreaks, deadline August 2004

Action: Franco de Simone (E Brocchi)/Aldo Dekker/Bernd Haas/ David Paton

Nilay Unal /Hagai Yadin (*field use in vaccinates +/- clinical FMD; spring*)

Progress: Brescia WS: May 2004 – Emiliana Brocchi, Kris De Clercq, Franco DeSimone, Secretariat.

On schedule.

■ Proficiency panel for virus detection methods (VI, antigen ELISA, RT-PCR)

Step 1: limited number of NRLs report to RG session 2004

Review/plan Step 2 = distribution to all NRLs report to RG session 2005

Action: c/o David Paton (& staff) + Aldo Dekker/Bernd Haas/Chris Griot/Kris deClercq
Delay.

■ Global FMD surveillance map/models

Plan: by end of December 2003

Action: EUFMD/WRL/FAO/OIE Working group
Delay.

■ Evaluate pen-side tests and develop guidelines

Plan: by end of December 2003

Action: Nilay Unal/Hagai Yadin/EUFMD secretariat (*pilot study on disease outbreak investigation*)

Delay.

□ Working group on biosecurity (serodiagnostic, by Cordoba, 19-23 April 2004) & high security laboratories (by 11/2004)

Action: Per Have/José Sanchez-Vizcaíno/Alf Füssel/etc.

Progress: Cordoba WS: Draft minimum standards for bio-security for laboratories undertaking serology for FMD – Keith Sumption

On schedule.

□ Working group on development of a diagnostic reagent bank (by Cordoba, April 2004)

Action: Bernd Haas/Alf Füssel/Kris de Clercq etc.

Progress: Cordoba WS: Diagnostic reagent banks for FMD – Bernd Haas

On schedule.

□ Guidelines for sample transport (by Cordoba, April 2004)

Action: Vilmos Palfi/David Paton/Chris Griot

Progress: Cordoba WS: Instructions for the safe transport of materials containing infectious FMD virus by air – Vilmos Palfi

On schedule.

□ WORKSHOP on contingency planning for NRLs (April 2004; Cordoba, Spain)

Action: with local organization by José Sanchez-Vizcaíno and attendance by all NRLs.

Position papers must be prepared in advance by all working groups.

Progress: Cordoba WS: Keith Sumption, EUFMD Secretariat, Kris De Clercq

On schedule.

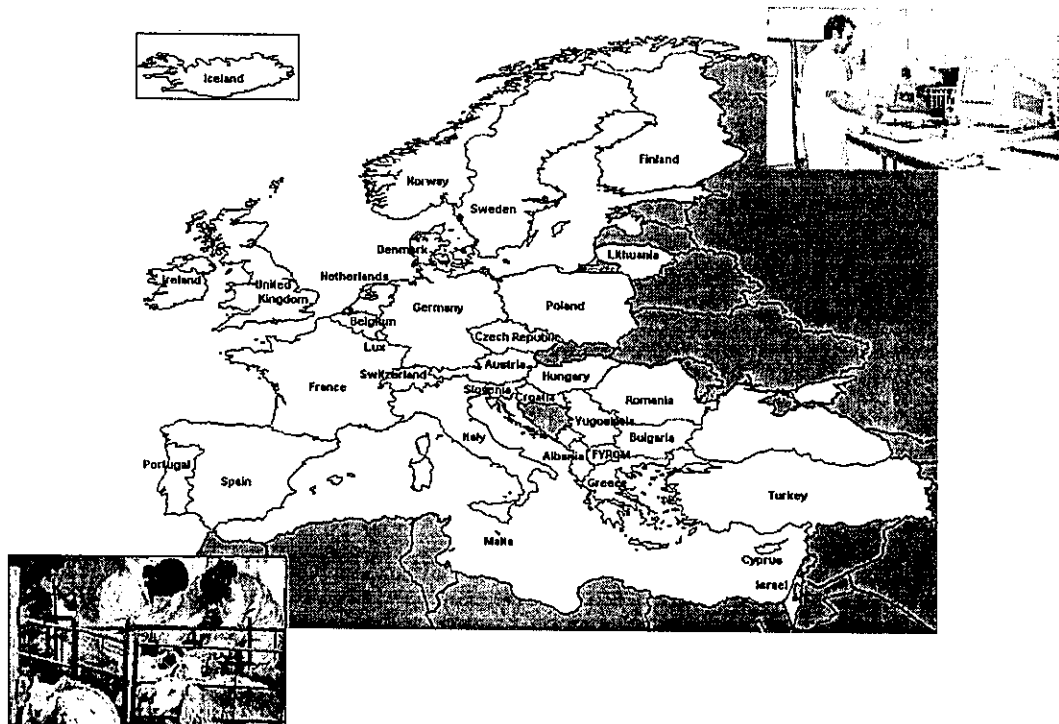
■ Study to assess D-values and Z-values for heat treatment of milk and pork from FMD-infected animals.

Action: P Have to draft outline of project (by Jan. 2004) with contribution from HYadin.
Delay.

In 2005 RG group to review vaccine antigens and gaps in sample submissions to reference laboratories (i.e. priority antigens and locations; two-year review).

WORKSHOP ON CONTINGENCY PLANNING FOR FOOT-AND-MOUTH DISEASE LABORATORY DIAGNOSTIC ACTIVITIES

Universidad de Córdoba



Organised by the
European Commission for the Control of Foot-and-Mouth
Disease (EUFMD), a constituent Commission of the
Food and Agriculture Organization of the United Nations

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Summary

The subject of contingency planning for FMD laboratories arose from difficulties experienced in the crisis situation in 2001. The 35th General Session of the EUFMD Commission in April 2003 recommended that the National Laboratory of each EUFMD member state should develop a contingency plan for diagnostic and serological surveillance functions in an emergency and that the plan be regularly rehearsed and modified as necessary. The Session also recommended a workshop be conducted for laboratories of the member states, and following receipt of support from the EC (DG-SANCO), a workshop (WS) on contingency planning for FMD laboratory diagnostic activities was held in Cordoba, Spain, and attended by 40 participants from 32 European countries, of which 21 were EU members or acceding countries, and 11 others, from Iceland to Israel. The WS was opened by the CVO of Spain, Dr Arnaldo Cabello Navarro, who emphasised the importance of addressing laboratory issues when developing emergency plans.

The aims of the workshop were principally to engage laboratory managers in the process of developing, reviewing, and implementing technical guidelines relating to contingency planning for diagnostic services and the scaling up of laboratory services in emergency situations. The scale of the problem to be faced was illustrated by speakers from the four counties directly affected in 2001. The experience of Ireland is that even a single outbreak can result in hundreds of thousands of test being

required, and therefore it is essential that each laboratory and each country identify in advance the process for scaling up capacity, and the limiting factors. Of the limiting factors, workspace in high containment facilities is limiting in most countries and therefore options were considered for moving test performance to other facilities, and possibly using portable devices.

The workshop was a rare opportunity for managers of FMD reference laboratories to meet and to engage as stakeholders in the development of guidelines affecting their functions; many were also meeting for the first time. Fourteen of the 15 EC member states and 7 of the 10 countries acceding on 1 May 2004 were represented (exceptions being Portugal, Malta, Slovakia, and Poland), almost entirely through their national FMD reference laboratory. Other participants included several CVOs, and senior state officers for infectious disease control/epidemiology. The workshop was organised by the Secretariat of the European Commission for the Control of FMD, an FAO Commission, with technical inputs mainly from FMD laboratory experts who are elected members of the Standing Technical Committee of the EUFMD Commission, and financially supported by the EC (DG-SANCO) and the EUFMD Commission. Prior to the WS the Standing Technical Committee (also known as the Research Group) had developed through working groups several technical papers in areas relating to diagnostic reagent banks and biosecurity requirements for serology laboratories, two areas seen as important for rapid escalation of diagnostic activities to the levels that may be required under the new EC Directive.

The workshop was therefore organised in order to:

- Review the issues of rapid escalation of FMD diagnostic activities, and to
- identify potential solutions that require to be covered in contingency plans.
- To review the draft guidelines and to adapt their content following stakeholders comments.
- Provide an updating on scientific opinion on the selection and use of diagnostic tests, bearing in mind the changing policy and regulatory and diagnostic options relating to vaccination and post-vaccination surveillance.

The workshop was successful in most of these aims. The general conclusion and recommendations include within them a timetable for follow up actions by laboratory participants, by the EUFMD Commission, and by the experts of the working groups, with an important commitment of laboratories represented to complete LCP by the end of 2004.

Drafts of three guideline papers were reviewed, on structure of model LCPs, on minimum standards for biosecurity for laboratories undertaking FMD serology, and on the transport of specimens to FMD reference laboratories; several of these texts were already considered to be useful as reference documents in draft form. Further, the working groups considered issues and potential solutions for scaling up of virus diagnosis, of sero-diagnosis, and the potential use of portable diagnostic tests. One group (on biosecurity for FMD serology laboratories) developed a revised text during the meeting; each of the reports of the other working groups will be incorporated into revised texts for review by the research group before or during the October Closed Session. The guidelines on biosecurity for FMD serology laboratories may if agreed and accepted at European level greatly facilitate establishment of capacity for mass serology in laboratories operating to less stringent biosecurity levels, such as regional veterinary laboratories and specialised high throughput ELISA facilities, thereby assisting member states in planning for the level of surveillance that will be required during and following outbreaks in order to provide national and European confidence that serological screening and follow up surveillance will be completed in an acceptable period of time, and hence to more rapidly regain on regional or national basis a status of freedom from infection.

Acknowledgements

The EUFMD gratefully acknowledges the efforts of many individuals to bring the workshop to reality. The workshop would not have been possible without the efforts of the following: the Dean of the Faculty of Veterinary Medicine, University of Cordoba, Spain, and Prof J.M Sanchez-Vizcaino, member of the EUFMD Standing Technical Committee, for practical arrangements in Spain. The Chairman of the EUFMD Standing Technical Committee, Dr Kris de Clercq, and members of the working groups (Dr Haas, Dr Palfi, Dr Dekker, Dr Paton, Dr Brocchi, Dr de Simone and Dr Yadin) and Dr Donal Sammin, EUFMD Secretariat, Rome, are thanked for their inputs in the design of the

programme and in the technical content. The Clerk of the Commission, Egiziana Fragiotta, and Dr Simona Sangiovanni, FAO volunteer, are thanked for their exceptional efforts before, during and after the workshop to assist with travel and other arrangements.

Output 1: General conclusions and recommendations

EUFMD/EC Workshop on Contingency Planning for Foot-and-Mouth Disease Laboratory Diagnostic Activities

Universidad de Córdoba, 28-30 April 2004

Recognising that:

1. Even a single confirmed outbreak of FMD in a single European country will create a high and urgent demand for diagnostic tests to be performed in the country concerned and in other European countries, and may require hundreds of thousands of serological tests to be performed.
2. The scaling up of diagnostic activities following a confirmed outbreak will be constrained by factors including the limited size of available space in the high security containment laboratories, of biological resources required for the tests, of available competent technical staff, financial resources and other factors.
3. Other options need to be reviewed to reduce the cost of maintaining a high standing capacity for performance of FMDV diagnostic tests within days of first requirement.

The workshop reaches the following general conclusions and recommendations:

1. Each European country should before 2005 develop, evaluate, and update on a yearly basis a contingency plan, to elaborate the strategy, organisation and resources required to be maintained during non-outbreak periods and each phase of an FMD emergency in Europe.
2. The model laboratory contingency plan should be further developed by mid-June 2004, following the review of the WG5, and thereafter circulated and made available on-line to assist the NLs in developing their own plans.
3. The LCP should address the issue of rapid scaling up of virus diagnostic capacity. The report (of working group 1) provides a guide for major elements to be considered and addressed.
4. Countries should urgently put into place arrangements for transport of specimens for FMD diagnosis, and sera, to reference laboratories in the European region.
5. The guidelines being developed by the EUFMD working group on transport of specimens for FMD diagnosis should be developed further by October 2004 and updated on a yearly basis by the EUFMD Research Group.
6. The LCP should address the issue of rapid scaling up of serological diagnostic capacity. The report (of working group 3) provides a guide for major elements to be considered and addressed.
7. The guidelines developed by the EUFMD working group on biosecurity requirements for sero-diagnostic laboratories, as modified by the working group during the workshop, were accepted in principle. The group is encouraged to complete the review by the EUFMD research group by October 2004 with a view to early acceptance at the European level.
8. Portable diagnostic devices have a potential to increase the speed of detection and confirmation of FMD virus infection, particularly in countries without national reference laboratories, and to reduce the scale of diagnostic activity required of reference laboratories. Guidelines are required to address issues relating to test performance, authorisation of personnel, indications for use, and on the subsequent submission to and use of reference laboratories. A WG should be established.
9. The creation of a European FMD diagnostic reagent bank is urgently required. The guidelines on the development of the bank should cover the arrangements for drawing rights, the necessity of laboratory contingency plans which address the provision of the resources required which are not provided by the bank. The technical specification of kits in the bank should be reviewed at least on an annual basis.

10. The subject of evaluation of LCPs should be addressed at the next meeting of the EUFMD RG.

Structure of the workshop

Background

The subject of contingency planning for FMD laboratories arose from difficulties experienced in the crisis situation in 2001. The subject was discussed by representatives of the 33 member states at the 35th General Session of the EUFMD Commission in April 2003. The Session recommended that the National Laboratory of each EUFMD member state should develop a contingency plan for diagnostic and serological surveillance functions in an emergency and that the plan be regularly rehearsed and modified as necessary. The Session also recommended a workshop be conducted for laboratories of the member states. Following these and other recommendations, the Standing Technical Committee (also known as the Research group) developed through working groups several technical papers in areas relating to diagnostic reagent banks and biosecurity requirements for serology laboratories, two areas seen as important for rapid escalation of diagnostic activities to the levels that may be required under the new EC Directive. The workshop was therefore organised in order to:

- Review the issues of rapid escalation of FMD diagnostic activities, and to
- identify potential solutions that require to be covered in contingency plans,
- To review the draft guidelines and to adapt their content following stakeholders comments.
- Provide an updating on scientific opinion on the selection and use of diagnostic tests, bearing in mind the changing policy and regulatory and diagnostic options relating to vaccination and post-vaccination surveillance.

Aims of the workshop

1. To review position papers relating to increasing capacity for FMD diagnostic activity in Europe (contingency planning for FMD outbreaks), laboratory prepared by Working Groups of the EUFMD research group. The workshop therefore enables stakeholders to interact with those preparing the papers to ensure the final guidelines address relevant concerns.
2. To identify ways by which laboratory capacity for virus diagnosis and for serology can be increased to meet requirements of emergency situations, issues to be addressed in implementation, and actions required in contingency plans.
3. To receive stakeholders feedback on the model Laboratory Contingency Plan (LCP).
4. To capture requirements of countries without facilities for FMD virus diagnosis for support from reference laboratories.
5. To identify options for conducting simulation exercises to test LCPs.
6. To increase awareness among national laboratories of member states of the EUFMD Commission of issues relating to FMD laboratory diagnosis, particularly the implications of the new EC Directive and the use of NSP antibody tests.

Activities addressing aims 1, 2, 3 were addressed first, as priorities; aims 4 and 5 were relegated to lower in the priority list and could not be covered in the time available. The format of the workshop and presentations supported increasing awareness of recent technical advances and regulatory changes (aim 6).

Form of the Workshop

- Presentation of experiences and main issues by resource persons (Wedns AM, additional presentations on Friday AM)
- Division into working groups (6 on Wedns)
- Working groups (Chair, resource person, rapporteur plus 3-6 participants)
- Presentation and discussions of findings/recommendations to plenary on Thursday
- Feedback recorded by an independent rapporteur (one who has not been a working member of the group) and incorporated into final report, presented on Friday.

Roles of participants in relation to working groups

1. All participants had a role – as Chairperson, resource person (e.g. presenter of a paper), rapporteur for working group, or rapporteur for the feedback of the main group on each item.
2. Chairpersons – their given role was to ensure that all points of view are heard, to ensure group discussion is held and that group completes task. Usually but not always presented the report to plenary.
3. Resource person: assists the group with their prepared position papers, information, experience relevant to task.
4. Rapporteur –records, summarises, revises with colleagues after feedback from plenary.
5. Feedback rapporteur – record discussion, questions and answers, summarise key points to be addressed in the final report, and passes these to WG rapporteurs.
6. Participants were expected to have no more than one significant role (rapporteur etc).

Timetable –as happened .

Wednesday 28th April

AM Opening by CVO Spain, Dr Arnaldo Caballo Navarro.

Introductions: scope of the workshop

Presentations -Recent experience - Why the need for laboratory contingency plans?

1. Experience and Issues in scaling up laboratory virus diagnostic activity during and after an FMD outbreak (the UK experiences in 2001). *Nigel Ferris, IAH Pirbright*
2. Issues in scaling up laboratory sero-diagnostic activity in countries without a national FMD laboratory, during and after an FMD outbreak. *Dianne Clery, Ireland (Annex4)*
Update and issues - EUFMD working groups relating to contingency planning.
3. Update/ Issues relating to the delivery of specimens to the NRL and international transport of infectious materials (by air). *Vilmos Pálfi, Hungary (Annex3)*
4. Update/ Issues relating to post-vaccination, post-outbreak serosurveillance. *Aldo Dekker, CIDC-Lelystad, The Netherlands (Annex 5)*
5. Update/Issues - biosecurity requirements for sero-diagnostic laboratories not requiring use of live virus. *Keith Sumption & Donal Sammin EUFMD-FAO(Annex 7)*
6. Update/issues – on the use of portable diagnostic devices. *Keith Sumption, EUFMD-FAO (Annex 9)*

PM Participants divided into 6 working groups, prepare report of findings.

Working Group 1 - Scaling up of virus diagnostic capacity to level required in FMD emergencies.

Working Group 2 - Review of the guidelines on transportation of samples to and between FMD diagnostic laboratories.

Working Group 3 - Scaling up of sero-diagnostic capacity to a level required in and following foot-and-mouth disease outbreaks.

Working Group 4 - Review of paper on biosecurity levels for FMD sero-diagnostic laboratories – does it adequately address stakeholders needs and concerns?

Working Group 5 - Develop a model Laboratory Contingency Plan for European national laboratories

Working Group 6 -Develop draft guidelines on use of portable diagnostic tests for FMD virus.

Thursday 29th April

AM Working groups continued to 10.30 am. Thereafter between 11 am and 4.30 pm plenary debated the working group reports.

4.30-5.30 Pm. Update/Issues relating to the establishment and maintenance of a European FMD diagnostic reagents bank. *Bernd Haas, Germany (Annex 10)*

Friday 30th April

AM 9-11.30 am

Presentations

- (i) Revision of the contingency plans for laboratory diagnosis in France following the FMD situation 2001; *Eric Plateau, AFSSA*
- (ii) Virus detection methods - increasing the speed and reliability of detecting infection. *Kris de Clercq (omitted for time reasons)(paper Annex 2)*
- (iii) Serological test methods – considerations for selection and use. *Franco de Simone and Emiliana Brocchi (Annex 6)*
- (iv) Recent experience with NSP antibody detection tests in Israel. *Hagai Yadin (Annex 8)*

11.30-1 am Presentation and discussion of the draft report of the workshop.

The following working groups did not meet - for reason of time constraints:

1. The role of laboratory networks and/or reference laboratories in peace-time and crisis situations.
2. Testing the plans - Simulation exercises for laboratories.
3. Simulation case-study.

Output- 2

Report of the Working Group 1

Task. Identify key components to be included in a Laboratory Contingency Plan (LCP) relating to scaling up of virus diagnostic capacity to level required in FMD emergencies

Chairperson: Kris de Clercq, other members Nigel Ferris (resource person), Dr Sedlak, Barbara Thuer, Lena Renstrom

Background and related papers: Annex 1 (Laboratory Contingency Plans), Annex 2 (Testing for FMDV)

Outputs = What needs to be put into lab preparedness/contingency plans to ensure preferred options can be implemented to planned timescale?

1. Sampling

Optimisation of samples (number, quality, considering the species)
Commission, lab people included, should decide in peace time
Planning, training

2. Tests

Scaling up

Reduce tests
Alter methods (ELISA, VI, PCR)
Reduce serotypes (only predominant)
Pooling
Reduce duplicates
Rationalise tests (automatisation)
Reorganise (other labs involved and rearrange responsibilities)
Simulation in peace time

3. Space

Storage space (samples, materials)
Cell culture (incubator, cooling place)

4. Staff

Training
Payment, time compensation
Teams (virology / serology / logistics, the whole institute involved, links between them)
Avoid exhausting shifts
Motivation

5. Support

Stock, consumables
IT, data management
Logistics
Waste
Support personal (accommodation, eating, clothes)
Containment (technical support)

Working group 2

Task: Review of the guidelines on transportation of samples to and between FMD diagnostic laboratories, and formulate recommendations on testing sample transport to reference laboratories

Members: Dr Palfi (resource person), Drs Must, Stylianas, Reboutzakou and Gunnarson

Outputs – a summary of discussions. Recommendations to author (Dr Palfi and others) of the draft guidelines.

Background and related papers: Annex 3 (Draft Guidelines on transportation of samples)

What are the main problems anticipated or experienced in sending samples, specimens and other biological materials to another national laboratory/WRL? For virus diagnosis? Including serum samples?

The FMD laboratory needs an agreement with either a courier or airlines before sending materials. Only some airlines admit dry ice in the shipment.

The transport takes several days in special during the weekend, so the courier can be too slow in crisis situation.

In spite of the international regulations there are differences among the airlines, couriers and countries. Financial problems for the payment of the shipments of biological material.

The sending of serum samples collected in different epidemiological situations (crisis situation and peacetime) is not clearly regulated.

What are the potential solutions to these problems?

- Previous agreement and contract with the carriers and airlines companies.
- The use of wet ice as refrigerant in case of difficulties with the dry ice transport in crisis situation.
- Financial provisions for the shipment of FMD materials must be included in the Contingency Plan.
- A qualified person should be in charge in each laboratory to send infectious materials to other laboratories.
- Serum samples collected in crisis situation are considered infectious substance; therefore the transport of such samples is regulated by IATA Dangerous Goods Regulations.
- Samples collected in peacetime cannot be considered infectious substance, so the transport is out of the Dangerous Goods Regulations. In this case the consideration of the paper about

collection and transport of specimens prepared by the IAH Pirbright experts is recommended when sending serum samples for investigation.

Questions 3, 4 and 5. Does the document prepared cover all these problems/issues? If so what areas must be addressed?

It is necessary to have available in the laboratory templates of the necessary documents for the shipment of biological materials.

This prepared document has to be supplemented with the copy of the necessary templates for the shipment of biological materials.

The Group has revised the prepared document and the corrected version will be circulated in the near future.

6. Who/when/where/how often should it be updated?

EU-FMD research group should be responsible for updating the shipment document once a year or every time that transport regulations are changed.

Each National Laboratory has to review the quality assurance documents once a year. During this revising the changes in the transport regulations have to be considered in accordance with the laboratory quality assurance system.

7. What reference should be made to these guidelines in the laboratory contingency plans?

The shipment of FMD materials must be a part of the laboratory contingency plan.

8. What does the Group recommend on testing your preparedness for specimen transport between countries?

The shipment of FMD materials should be a part of the simulation exercises for the control of FMD.

Task 3. Identify key components to be included in a laboratory contingency plan relating scaling up of sero-diagnostic capacity to a level required in and following a foot-and-mouth disease outbreak.

Output = What needs to be put into lab preparedness/contingency plans to ensure preferred options are kept under review, are updated as required, and necessary resources are in place to enable implementation to planned timescale?

Background and related papers: Annex 4 (Experience of Ireland in scaling up sero-diagnosis), Annex 5 (Issues in post outbreak and post-vaccination surveillance), Annex 6 (Review of sero-diagnostic methods and test selection for FMD)

Lorena Jemeršić (chair), Dianne Clery (rapporteur), Emiliana Brocchi, Dita Krastina, Ivan Holko, Naci Bulut, Karl Johan Sørensen, Aldo Dekker.

Introduction

This document describes issues which have to be taken into account when writing a laboratory contingency plan for serological testing of foot-and-mouth disease.

In case of an outbreak **other laboratories** outside the national laboratory can be included if the number of samples per day exceeds its capacity or when distance requires an additional laboratory. Regional laboratories should be checked by the national reference laboratory and should also have a laboratory contingency plan.

The **number of samples** that a laboratory will have to be prepared for, depends on the veterinary organization, density of susceptible animals and the way animals are housed. The numbers used in the

laboratory contingency plan should be in line with the numbers mentioned in the national contingency plan. The number of samples a laboratory will have to handle may depend on whether a “vaccination to live” policy is used, currently there are no approved protocols for surveillance after an emergency vaccination. The numbers considered in the text are independent whether vaccination is used or not. The numbers in the text are indicative, they may be different for various laboratory situations. The numbers mentioned in the text are based on one test per sample (a test for one serotype or a test for antibodies against non-structural proteins of foot-and-mouth disease).

A general epidemiological principle states that **lower sensitivity** of an assay can more easily be compensated by a small **increase in sample size** than by increasing the analytical sensitivity of the assay (e.g. by testing in duplicate). Enhancement of the analytical sensitivity usually causes an increase of false positive samples.

Only an outbreak with a **single serotype** is considered, outbreaks with multiple serotypes might occur. In the latter case an assay using the non-structural protein of foot-and-mouth disease can be considered.

A **ramping-up period** within the foot-and-mouth disease outbreak should be defined in the laboratory contingency plan, depending on the expected number of samples. This will also depend on the density of the livestock in a country. The capacity to follow up serology during the outbreak should be reached within 2 - 4 weeks. A laboratory contingency plan should also consider the post-outbreak surveillance, which often requires very high number of samples to be tested to prove absence of disease. This capacity should be available within two months after the first case of foot-and-mouth disease.

A **database system** should be setup in which communication with the disease crisis center is possible.

Items to be addressed in a laboratory contingency plan

Facilities

- Reception area / recording and registration
- Testing rooms
 - Separation of serum
 - Testing the samples
- Storage facilities
 - + 4
 - - 20
 - Room temperature
- Reporting / IT database
- Waste disposal
- Catering facilities

Personnel

Depending on LIMS system / Barcoding or manual labeling

	No of samples per day	
	500	5000
➤ Reception / registration	0.5	2
➤ Preparation / separation of serum	0.5	2
➤ Testing (depending on equipment and test system)	1	4-6
○ At least one experienced staff member		
▪ Adequate training during non-outbreak period		
○ Reporting		
➤ Waste disposal / cleaning	0.5	1
➤ Catering		
➤ Management	2 x 0.15	2 x 0.5
○ Head of laboratory / laboratory expert		
○ Manager for purchasing supplies and equipment		
➤ IT database	1	1

In the contingency plan it should be described how people are recruited from institutes that are involved in other diagnostic testing. Other personnel or laboratories that can supply technicians trained in similar methodologies should be identified in advance.

Equipment and supplies

Biologicals

Depending on test system the laboratory contingency plan should consider the source and a procedure to acquire these biologicals. The laboratory must ensure that stocks of biologicals are available to cover the time needed for the producers to replace them including scaling-up of the diagnostic capacity.

- Kits
- Control sera
 - Primary standards
 - Secondary standards
- In house reagents
 - Availability
 - Ramping up period
- Reagents produced in another laboratory
- Reagents bank

Non-biologicals

- Tips
- Chemicals and buffers
- Plates
- Tubes / glassware etc.

Equipment

Depending on the system used in the laboratory it may vary, the following items should be considered. In all cases a backup or spare parts should be considered. The number of various pieces of equipment may vary with the number of samples that have to be tested.

A list of suppliers should be kept to be able to purchase equipment in needed.

- Plate washer
- ELISA reader
- Several computers / printers / barcodescanners
- Pipets
- Pipetting robots
- Shakers
- Incubators

Waste disposal

Way of disposal is handled in another working group

- Liquid
- Solid

Confirmation of positive results from ELISA

In laboratories in which confirmation of positive ELISA results by virus neutralization test is not possible a contract with another laboratory that can perform the confirmatory test should be agreed in advance and this laboratory should have a contingency plan to ensure adequate capacity.

Quality assurance

- Test

A laboratory should use an OIE recognized test or can use an alternative test provided compliance with standard reference sera (if available) and diagnostic performance is documented.

➤ Personnel

Training records of personnel should be kept, and a training plan for newly assigned personnel should be established.

➤ Review

A laboratory contingency plan should be reviewed on a yearly basis (e.g. is assigned personnel still working in the institute?) Stocks of reagents should be checked at least on a yearly basis.

Public relations

Also activities relating serology should be handled by the official channels (Press office, a central phone area for queries).

Working group 4

Task: Review of paper on biosecurity levels for FMD sero-diagnostic laboratories – does it adequately address stakeholders needs and concerns?

Members: Dr Sanchez-Vizcaino (Chair), Dr Haas (Rapporteur), Dr Mehmadbasic, Schon, Cumpanasiou, Rikula, de Simone

Outputs: recommendations on adoption and/or changes to paper.

Background and related papers: Annex 7 (Biosecurity considerations)

The working group chose to revise the draft document prepared by EUFMD Secretariat. This is presented as Version 3, Cordoba, below.

Version 3.

Minimum standards for bio-security for laboratories undertaking serology with blood samples from areas not considered free from foot-and-mouth disease

[Note: Final version adopted on 11 October 2004 is available from the EUFMD Secretariat and will be published in the report of the Session of the Research Group held in Greece on 11-15 October 2004].

Report of working group 5

Task: Develop a model Laboratory Contingency Plan for European national laboratories

Members: Drs Yadin, Plateau, Georgiev, Malovrh, Jacevicius, Diaconu, Romero González (Rapporteur)

Outputs: recommendations on the content of a revised, “model LCP” for consideration by the main workshop.

Background and related papers: Annex 1 (Laboratory Contingency Plans)

The model of Garland, 2003 (35th general Session of the EUFMD, 2003) was provided as an example. However, since this was developed for an international reference laboratory, the model needs relevant to the needs of national laboratories of smaller countries including those who do not have high security facilities for FMD diagnosis.

Report

Contingency planning for FMD laboratories

1. The working group is composed of seven members representing average N.R.L for FMD with average size of 300m² except for one in Israel having facilities of 1000m² including area for animal experiments.
2. All members of the group mentioned that their staff is responsible also for other list A diseases and some of them are in charge of administrative management.
3. The Working Group (WG) agrees upon the four levels of alert described by the introduction.
 - Level A – No outbreak in the region.
 - Level B – Outbreak in the region.
 - Level C – First outbreak in the country.
 - Level D – secondary and tertiary outbreaks.

Nevertheless for some WG members the limit between C and D levels can be adapted to the epidemiological situation.

4. Consideration regarding the different levels:
 - Level A: at this stage the laboratory should fully comply with the following capacities:
 - i. Having the know how with virus isolation and antigen identification different types of serological tests and molecular virology (PCR).
 - ii. Can give accurate advices to the Veterinary Services regarding field investigations (sample collection, epidemiology of FMD and differential diagnosis).
 - iii. Development of international contacts with other FMD centers and be involved in proficiency tests.
 - iv. Should have adapted knowledge in vaccinology, strain selection, vaccine production, vaccine control and evaluation of safety and efficiency.
 - v. Active implication in knowledge should be transfer to local official staff, laboratory and Veterinary Services. This knowledge transfer should include sample collection transport and diagnosis procedure.
 - vi. Permanent maintenance and technical supervising of the high containment facilities according to official recommendations should be implicated.
 - vii. Be in position to purchase all the necessary equipment.
 - viii. Be regularly supplied with all the necessary reagents.
 - ix. The laboratory facilities should comply with ISO norms.
 - x. The laboratory should evaluate periodically its diagnostic capacities regarding different type of situations scenarios and report it to their authorities.
5. Level B: A higher degree of alert should be adapted. Checking the reagents stock, upgrade the alert of the staff. Collect and connect all data from different sources.
6. Level C: & Level D: Complete mobilization of all laboratory capacities in order to be able to comply with the unclear developed situation.

Summary of the plenary discussion on this item:

Rapporteur: Prof. Edmond Panariti, with additional points from the Chairman

1. The Disease Security Officer should be considered an essential position, and with functions identified in the Contingency plan (CP hereinafter) structure. He/She should be in position to take responsibility for biosecurity measures, assure the legal basis for the enforcement of safety and security in all lab or in field procedures.
2. The position of crisis manager (external relations) should be included in the CP, to handle external relations in place of technical staff whose skill and time is in short supply.
3. The difference between the C and D action levels in the Contingency Planning is not well defined. It appears that the main difference lies in the virus typing which is normally not done in level C, but D.
4. It is important to start with the contingency plan and later on establish the level of action which can vary from A-C. The CP should be flexible enough by taking into account the different situations in various countries. Different parts of the CP can be activated in accordance with the situation needs.

5. Lab capacities and needs for the implementation of the CP should be made known well in advance to the authorities. The capacity should state the sample throughput INCLUSIVE of expected levels of re-testing –the latter may be significant. This statement of capacity should then be valuable in contract negotiation with Government.
6. CP should be based on local resources available at that point in time. If the CP indicates that resources will be exceeded, this should be made known to the competent authorities (CA).
7. Negotiation should be started with the CA on the alternative ways by which the required capacity can be gained during the crisis.
8. In case that the lab capacities lie beyond to what is required, other alternatives should be investigated as a way out. Other labs might be eventually involved for carrying out supplementary work. The need for such supplementary capacity/work should be stated in the CP itself.
9. A periodical reassessment (yearly) of capacities is necessary in view of the ever changing situations.
10. Management of the crisis will require management styles that enable problems to be quickly identified and resolved, in advance of the crisis, and during the scaling up of activities. Team management approaches are encouraged, especially during the scaling up process. This should assist to improve problem identification and communication, to achieve a consensus on priorities and daily tasks to be undertaken, and to use the scarce personnel and skills to greatest effect.

Working group 6

Task: Develop draft guidelines on use of portable diagnostic tests for FMD virus

Members: Dr Mitrea (Chair), Drs Tharaldsen (Rapporteur), Sumption (resource person), Panariti, Cobanov, Separovic, Krnjaic, Sangiovanni

Outputs: recommendations on coverage and draft content of guidelines

Background and related papers: Annex 9 (Outlook and issues relating to use of portable diagnostic tests), Annex 2 (Testing for FMDV)

Definition: Portable devices are any rapid tests used outside the regular laboratory.

Such tests could be considered used in any situation when there is a special need for rapid results. As an example, the National Laboratories can be under great pressure in case of an outbreak of FMD, and rapid tests could be considered an additional tool.

Test requirements: Pen-side test can be used for detection of virus provided it has equal or better sensitivity than the ELISA, and ideally, both antigen and antibody tests should be available. A portable RT-PCR may also meet these criteria and provide a possible test system.

The quality of the tests should be validated by competent, independent reference laboratories in compliance with OIE test requirements. All relevant characteristics which may influence the test result, such as temperature and humidity, should be included in the validation.

The test performance will determine the use of these tests, and it will be up to the National Authorities to decide if they are going to use it and under which conditions.

Personnel performing these tests must be authorized and specially trained.

Summary of the discussion:

The pen-side tests must be fully validated in accordance with the OIE guidelines.

The guidelines for these tests should specify under which conditions they should be used. Which further actions to be taken will be depending on the outcome of the test.

The guidelines should reflect the difference between pen-side tests for antigen detection and those for antibody detection.

Recommendation: The guidelines should be further developed.

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Ongoing comparative evaluation and validation of DIVA tests

Dónal Sammin, APO, EUFMD

The 35th General Session of EUFMD identified validation of NSP antibody detection tests (for the purpose of differentiating infected from vaccinated animals) as one of the priorities for the Research Group. In addition, given the threat which had been posed to Southern Europe by SAT-2 infection in Libya in mid-2003 and the fact that serotype-specific diagnostic tests are either not available or not validated for diagnosis of SAT-type infections in many member countries, the use of NSP antibody detection ELISAs for this purpose was also considered at the Closed Session of the Research Group in Gerzensee (September 2003).

Letters of Agreement between FAO-EUFMD and the state veterinary services in Israel and Zimbabwe supported the collection of sera and epidemiological information from convalescent animals at FMD outbreak locations in both countries. Israel reported FMD caused by virus of serotype O in January/February 2004; the affected animals were mostly juvenile cattle in vaccinated herds. Sera collected from cattle on three farms (n = 472) and from a single flock of sheep (n = 69) were tested for NSP antibody using two different test methods. In groups of animals which had displayed clinical signs of FMD, the duration between last vaccination and infection was significantly greater than in those without clinical signs and groups in which clinical FMD had been observed had 4-5 times more seropositive animals than groups in which clinical FMD had not been observed.

Zimbabwe has had outbreaks of SAT-2 type FMD in previously FMD-free exporting zones since at least 2001. Sera, saliva, probang samples and brush swabbings of the nasopharynx were collected from 344 cattle at five outbreak locations in three provinces (April/May 2004). According to stockmen, all of these animals had been clinically-affected within the previous 1-5 months and at the time of sampling, many of the cattle had "linear breaks" in their hooves indicative of interrupted horn growth and suggesting that they had recovered from clinical FMD. Many of these animals had been vaccinated on at least two occasions with a trivalent vaccine (against serotypes SAT-1, -2 and -3) either before and/or after the FMD outbreak. Therefore, sera and saliva were collected from 60 cattle on a farm in which there has been no evidence of clinical FMD but where all animals had been vaccinated on four separate occasions with the same vaccine. All of these clinical specimens have been delivered to IAH, Pirbright, where the initial testing will be conducted before serum is distributed to other European laboratories.

A workshop on comparative evaluation and validation of FMDV-NSP antibody ELISAs (IZSLER, Brescia, 3-15 May 2004) organised by the FP6-FMD-ImproCon group was jointly supported by FAO-EUFMD and the EC. This workshop was unique because of: (a) the participation of FMD scientists from Panaftosa in addition to those from institutes in seven EUFMD member countries; (b) the number of animals (> 2000) from which serum was provided for testing and (c) the timetable which allowed 7-8 days for laboratory work (testing all sera by each of six different NSP antibody ELISAs) and two days for data analysis and discussion followed by a meeting with the representatives of three commercial companies at which the preliminary report was presented. A large amount of data was generated during the course of the workshop and only preliminary analyses have been conducted to date. Estimates of the sensitivity of the different ELISAs in vaccinated and infected cattle varied from 30-90%, the lower sensitivity values suggesting that these tests may only be applicable at the herd level and/or in combination with other DIVA tests. In addition, likelihood ratios might be more useful in the interpretation of test results than categorisation of results as either positive or negative based on a single "cut-off" value. Further analysis and discussion will be required before definite conclusions can be made and remaining gaps identified; this is one of the issues to be reviewed at the 2004 Research Group Session. However, it is already apparent that further data will need to be obtained from sheep and pigs in order to compare and validate NSP antibody ELISAs for use in these species.

MTF/INT/011/MUL - TF number 904200

EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE

Financial Report as at 31 December 2002

	US\$	US\$
<u>Balance as at 1 January 2002</u>		249,037
Interest received	3,413	
Contribution from member countries (As per statement 2)	<u>283,186</u>	286,599
<u>Expenditure</u>		
Commission Secretary	141,129	
Consultant	2,000	
Admin. Support Personnel	57,392	
Contracts	59,200	
Duty Travel	57,424	
General Operating Expenses	179	
Expendable Equipment	3,973	
Non-Expendable Equipment	0	
Total Expenditure		<u>-321,297</u>
Balance as at 31 December 2002		<u>214,339</u>

STATEMENT 2

TRUST FUND No. 9042.00 - MTF/INT/011/MUL - Inter-Regional - European Commission for the Control of Foot-and-Mouth Disease
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Status of Contributions as at 31 December 2002
(expressed in US\$)

Member Governments	Outstanding 31/12/2001	Contribution due for 2002	Received up to 31/12/2002	Outstanding 31/12/2002
ALBANIA	25.00	2,600.00	2,582.42	42.58
AUSTRIA	0.00	7,800.00	7,791.80	8.20
BELGIUM	0.00	13,000.00	12,992.48	7.52
BULGARIA	0.00	7,800.00	7,800.00	0.00
CYPRUS	0.00	2,600.00	2,600.00	0.00
CROATIA	2,609.00	2,600.00	2,600.00	2,609.00
CZECH REPUBLIC	0.00	7,800.00	7,800.00	0.00
DENMARK	0.00	13,000.00	13,000.00	0.00
FINLAND	0.00	7,800.00	7,792.47	7.53
FRANCE	0.00	26,000.00	26,000.00	0.00
GERMANY	0.00	26,000.00	26,000.00	0.00
GREECE	0.00	7,800.00	7,800.00	0.00
HUNGARY	0.00	7,800.00	7,800.00	0.00
ICELAND	2,600.00	2,600.00	10,392.48	-5,192.48
IRELAND	20.00	7,800.00	7,800.00	20.00
ISRAEL	0.00	2,600.00	2,600.00	0.00
ITALY	10,478.13	26,000.00	23,254.94	13,223.19
LITHUANIA	0.00	2,600.00	2,600.00	0.00
LUXEMBOURG	0.00	2,600.00	2,600.00	0.00
MACEDONIA, The Former Yugoslav Rep. of	5,215.00	2,600.00	5,190.00	2,625.00
MALTA	4.78	2,600.00	2,604.78	0.00
NETHERLANDS	0.00	13,000.00	13,000.00	0.00
NORWAY	0.00	7,800.00	0.00	7,800.00
POLAND	0.00	13,000.00	13,000.00	0.00
PORTUGAL	0.00	7,800.00	0.00	7,800.00
ROMANIA	0.00	13,000.00	13,000.00	0.00
SLOVENIA	0.00	2,600.00	2,600.00	0.00
SPAIN	0.00	13,000.00	13,000.00	0.00
SWEDEN	0.00	13,000.00	12,985.00	15.00
SWITZERLAND	0.00	13,000.00	13,000.00	0.00
TURKEY	0.00	13,000.00	13,000.00	0.00
UNITED KINGDOM	0.00	26,000.00	0.00	26,000.00
YUGOSLAVIA, Soc. Fed. Rep. of	81,511.30	0.00	0.00	81,511.30
YUGOSLAVIA, Fed. Rep. of	1,950.00	7,800.00	0.00	9,750.00
TOTALS	104,413.21	325,000.00	283,186.37	146,226.84

STATEMENT 3

MTF/INT/004/MUL - TF number 909700

FOOT AND MOUTH DISEASE - EMERGENCY AID PROGRAMME

Financial Report as at 31 December 2002

	US\$	US\$
Balance as at 1 January 2002		39,831
Interest received		525
Expenditure		
Consultancy	0	
Duty travel	0	
Expendable Procurement	0	
Support Costs	0	
Total expenditure	<u>0</u>	0
Balance as at 31 December 2002		<u>40,356</u>

STATEMENT 4

MTF/INT/003/EEC - TF number 911100

FOOT AND MOUTH DISEASE

Financial Report as at 31 December 2002

	US\$	US\$
Balance as at 1 January 2002		281,411
Interest received	4,600	
Contribution received	0	
		4,600
Expenditure		
Consultancy	1,500	
Duty Travel	48,333	
Contracts	22,795	
General Operating Expenses	25	
Expendable Equipment	1,742	
Non-Expendable Equipment	-	
Support Costs 6% (on all items except expendable equipment)	<u>4,359</u>	
Less: Total Expenditure		<u>78,754</u>
Balance as at 31 December 2002		<u>207,257</u>

MTF/INT/011/MUL - TF number 904200

EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE

Financial Report as at 31 December 2003

	US\$	US\$
<u>Balance as at 1 January 2003</u>		214,339
Interest received	1,822	
Contribution from member countries (As per statement 2)	<u>244,621</u>	246,443
<u>Expenditure</u>		
Commission Secretary	166,403	
Consultant	12,152	
Admin. Support Personnel	74,781	
Contracts	70,000	
Duty Travel	46,160	
General Operating Expenses	18,339	
Expendable Equipment	156	
Non-Expendable Equipment	0	
Total Expenditure		<u>-387,991</u>
Balance as at 31 December 2003		<u>72,791</u>

STATEMENT 2

TRUST FUND No. 9042.00 - MTF/INT/011/MUL - Inter-Regional - European Commission for the Control of Foot-and-Mouth Disease
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Status of Contributions as at 31 December 2003
(expressed in US\$)

Member Governments	Outstanding 31/12/2002	Contribution due for 2003	Received up to 31/12/2003	Outstanding 31/12/2003
ALBANIA	42.58	2,600.00	2,609.99	32.59
AUSTRIA	8.20	7,800.00	5.20	7,803.00
BELGIUM	7.52	13,000.00	13,007.52	0.00
BULGARIA	0.00	7,800.00	7,792.26	7.74
CYPRUS	0.00	2,600.00	2,600.00	0.00
CROATIA	2,609.00	2,600.00	2,589.00	2,620.00
CZECH REPUBLIC	0.00	7,800.00	7,792.07	7.93
DENMARK	0.00	13,000.00	12,992.11	7.89
FINLAND	7.53	7,800.00	7,799.68	7.85
FRANCE	0.00	26,000.00	0.00	26,000.00
GERMANY	0.00	26,000.00	0.00	26,000.00
GREECE	0.00	7,800.00	7,797.00	3.00
HUNGARY	0.00	7,800.00	15,600.00	-7,800.00
ICELAND	-5,192.48	2,600.00	4.52	-2,597.00
IRELAND	20.00	7,800.00	7,800.00	20.00
ISRAEL	0.00	2,600.00	0.00	2,600.00
ITALY	13,223.19	26,000.00	26,986.61	12,236.58
LITHUANIA	0.00	2,600.00	2,592.21	7.79
LUXEMBOURG	0.00	2,600.00	2,600.00	0.00
MACEDONIA, The Former Yugoslav Rep. of	2,625.00	2,600.00	2,567.33	2,657.67
MALTA	0.00	2,600.00	2,600.00	0.00
NETHERLANDS	0.00	13,000.00	13,000.00	0.00
NORWAY	7,800.00	7,800.00	7,800.00	7,800.00
POLAND	0.00	13,000.00	13,000.00	0.00
PORTUGAL	7,800.00	7,800.00	0.00	15,600.00
ROMANIA	0.00	13,000.00	12,992.15	7.85
SERBIA and MONTENEGRO (ex YUG.)	9,750.00	7,800.00	17,540.00	10.00
SLOVENIA	0.00	2,600.00	2,570.75	29.25
SPAIN	0.00	13,000.00	12,992.27	7.73
SWEDEN	15.00	13,000.00	12,990.00	25.00
SWITZERLAND	0.00	13,000.00	13,000.00	0.00
TURKEY	0.00	13,000.00	13,000.00	0.00
UNITED KINGDOM	26,000.00	26,000.00	0.00	52,000.00
YUGOSLAVIA, Soc. Fed. Rep. of	81,511.30	0.00	0.00	81,511.30
TOTALS	146,226.84	325,000.00	244,620.67	226,606.17

STATEMENT 3

MTF/INT/004/MUL - TF number 909700

FOOT AND MOUTH DESEASE - EMERGENCY AID PROGRAMME

Financial Report as at 31 December 2003

	US\$	US\$
Balance as at 1 January 2003		40,356
Interest received		447
Expenditure		
Consultancy	0	
Duty travel	0	
Expendable Procurement	0	
Support Costs	0	
Total expenditure	<u>0</u>	0
Balance as at 31 December 2003		<u>40,803</u>

STATEMENT 4

MTF/INT/003/EEC - TF number 911100

FOOT AND MOUTH DISEASE

Financial Report as at 31 December 2003

	US\$	US\$
Balance as at 1 January 2003		207,257
Interest received	7,163	
Contribution received	1,309,997	
		1,317,160
Expenditure		
Consultancy	50,041	
Duty Travel	37,081	
Contracts	31,572	
General Operating Expenses	132	
Expendable Equipment	398,670	
Non-Expendable Equipment	-	
Support Costs 6% (on all items except expendable equipment)	<u>7,130</u>	
Less: Total Expenditure		<u>524,626</u>
Balance as at 31 December 2003		<u>999,791</u>

MTF/INT/011/MUL - TF number 904200

EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE

Financial Report as at 18 May 2004

	US\$	US\$
<u>Balance as at 1 January 2004</u>		72,791
Interest received	405	
Contribution from member countries (As per statement 2)	<u>275,795</u>	276,200
<u>Expenditure</u>		
Commission Secretary	62,261	
Consultant	1,500	
Admin. Support Personnel	26,727	
Contracts	10,000	
Duty Travel	8,052	
General Operating Expenses	0	
Expendable Equipment	794	
Non-Expendable Equipment	0	
Total Expenditure		<u>-109,334</u>
Balance as at 18 May 2004		<u>239,657</u>

STATEMENT 2

TRUST FUND No. 9042.00 - MTF/INT/011/MUL - Inter-Regional - European Commission for the Control of Foot-and-Mouth Disease
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Status of Contributions as at 18 May 2004
(expressed in US\$)

Member Governments	Outstanding 31/12/2003	Contribution due for 2004	Received up to 18/05/2004	Outstanding 18/05/2004
ALBANIA	32.59	3,000.00	0.00	3,032.59
AUSTRIA	7,803.00	9,200.00	16,986.69	16.31
BELGIUM	0.00	15,300.00	15,287.01	12.99
BULGARIA	7.74	9,200.00	9,199.52	8.22
CYPRUS	0.00	3,000.00	0.00	3,000.00
CROATIA	2,620.00	3,000.00	0.00	5,620.00
CZECH REPUBLIC	7.93	9,200.00	0.00	9,207.93
DENMARK	7.89	15,300.00	15,299.52	8.37
FINLAND	7.85	9,200.00	9,199.35	8.50
FRANCE	26,000.00	30,500.00	56,483.18	16.82
GERMANY	26,000.00	30,500.00	56,491.55	8.45
GREECE	3.00	9,200.00	0.00	9,203.00
HUNGARY	-7,800.00	9,200.00	1,400.00	0.00
ICELAND	-2,597.00	3,000.00	0.00	403.00
IRELAND	20.00	9,200.00	9,200.00	20.00
ISRAEL	2,600.00	3,000.00	0.00	5,600.00
ITALY	12,236.58	30,500.00	0.00	42,736.58
LITHUANIA	7.79	3,000.00	0.00	3,007.79
LUXEMBOURG	0.00	3,000.00	3,000.00	0.00
MACEDONIA, The Former Yugoslav Rep. of	2,657.67	3,000.00	0.00	5,657.67
MALTA	0.00	3,000.00	2,986.49	13.51
NETHERLANDS	0.00	15,300.00	15,291.71	8.29
NORWAY	7,800.00	9,200.00	0.00	17,000.00
POLAND	0.00	15,300.00	0.00	15,300.00
PORTUGAL	15,600.00	9,200.00	16,109.85	8,690.15
ROMANIA	7.85	15,300.00	15,294.56	13.29
SERBIA and MONTENEGRO (ex YUG.)	10.00	9,200.00	0.00	9,210.00
SLOVENIA	29.25	3,000.00	2,986.93	42.32
SPAIN	7.73	15,300.00	15,286.86	20.87
SWEDEN	25.00	15,300.00	0.00	15,325.00
SWITZERLAND	0.00	15,300.00	15,291.44	8.56
TURKEY	0.00	15,300.00	0.00	15,300.00
UNITED KINGDOM	52,000.00	30,500.00	0.00	82,500.00
YUGOSLAVIA, Soc. Fed. Rep. of	81,511.30	0.00	0.00	81,511.30
TOTALS	226,606.17	381,700.00	275,794.66	332,511.51

STATEMENT 3

MTF/INT/004/MUL - TF number 909700

FOOT AND MOUTH DISEASE - EMERGENCY AID PROGRAMME

Financial Report as at 18 May 2004

	US\$	US\$
<u>Balance as at 1 January 2004</u>		40,803
Interest received		101
<u>Expenditure</u>		
Consultancy	0	
Duty travel	0	
Expendable Procurement	0	
Support Costs	0	
Total expenditure	<u>0</u>	0
Balance as at 18 May 2004		<u>40,904</u>

STATEMENT 4

MTF/INT/003/EEC - TF number 911100

FOOT AND MOUTH DISEASE

Financial Report as at 18 May 2004

	US\$	US\$
<u>Balance as at 1 January 2004</u>		999,791
Interest received	2,463	
Contribution received	0	2,463
<u>Expenditure</u>		
Consultancy	2,520	
Duty Travel	33,665	
Contracts	89,850	
General Operating Expenses	0	
Expendable Equipment	70,368	
Non-Expendable Equipment	-	
Support Costs 6% (on all items except expendable equipment)	<u>2,638</u>	
Less: Total Expenditure		<u>199,041</u>
Balance as at 18 May 2004		<u>803,213</u>

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