REPORT

Lysebu,
Norway,
26-27
November
1998

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

Sixty-second session of the Executive Committee

Food
and
Agriculture
Organization
of
the
United
Nations

Report of the

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

Sixty-second session of the Executive Committee

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 1998

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INTRODUCTION

The Executive Committee of the European Commission for the Control of Foot-and-Mouth Disease (EUFMD) held its Sixty-Second Session at Lysebu Conference Centre, Lysebu, Norway, on 26 and 27 November 1998.

Members of the Committee present:

Dr R. Marabelli, Italy, Chairman
Dr L. Celeda, Czech Republic, Vice-Chairman
Dr T. Balint, Hungary
Dr G. Bakken, Norway
Dr D. Panagiotatos, Greece

Observers

EC
Dr J. Westergaard, EC Commission, Brussels, Belgium

OIE
Dr N. Belev, Sofia, Bulgaria

Chairman of the Research Group
Dr K. De Clercq, CODA-CERVA-VAR, Ukkel, Belgium

WRL
Dr A.I. Donaldson, Head of Laboratory, Pirbright, UK

France
Dr M. Eloit, Ministry of Agriculture, Paris

Turkey
Dr N. Aslan, Deputy Director General, General Directorte for Protection and Control
Dr M. Tufan, Epidemiologist, General Directorate for Protection and Control, Ankara

Norway
Dr E. Liven, Chief Veterinary Officer/Director, Animal Health Authority
Dr B. Naess, Director, National Veterinary Institute
Dr T. Lecomte, Dept of Food Production, Plant and Animal Health
Ms A.K. Fjellhaug, Secretariat, Animal Health Authority

Russian Federation
Dr A. Avilov, Chief Main Veterinary Department, Moscow
Prof. A. Gusev, Director, ARRIAH, Vladimir
Ms N.A. Tsikina, Ministry of Agriculture and Food, Moscow

Secretariat
Dr Y Leforban, Secretary, EUFMD, FAO, Rome
Ms J Raftery, Administrative Assistant, EUFMD, FAO, Rome
Dr J Ryan, Associate Professional Officer, EUFMD, FAO, Rome

Dr Bakken, Director General, Department of Food Production and Plant and Animal Health, Norway, welcomed participants and observers and said that it was a great honour and pleasure for Norway to host the Sixty-second Session of the Executive Committee. He wished the participants and observers a very successful meeting and a pleasant stay despite the unfavourable weather conditions which he had already warned the Committee about when it had been decided to hold this Session in Norway.

Dr Bakken then invited Mr Kjell Halvorsen, Director-General and Head of the Department for Global Affairs at the Ministry of Foreign Affairs to address the meeting. He drew attention to the high-level responsibilities covered by Mr Halvorsen in UN activities which ranged from participation in the General Assembly and Security Council to co-operation with UNICEF, UNDP, WFP and FAO in the field of development

On behalf of the Norwegian Government, Mr Halvorsen welcomed participants and observers. He described Norway's open economy and foreign policy which embrace multilateral cooperation and strong support to the UN system and its Specialised Agencies in particular FAO. He explained that the Ministry of Foreign Affairs and the Ministry of Agriculture share responsibility for Norway's relationship with FAO and that the Secretary General of the Ministry of Agriculture would have been present at the opening session had his presence not been required at the 115th Session of the FAO Council which is being held in Rome this week. Animal health, and in particular highly contagious diseases such as FMD, is a good example of the need for international cooperation. While containment is local, monitoring and control need to be international. Animal health is not only a question of economy and animal welfare, it is closely linked to human health and consumers' concerns. Events over the last few years have clearly demonstrated how trade in animal products can become a highly controversial political issue especially if there is any fear of such trade having an effect on human health. Mr Halvorsen wished the meeting fruitful discussions and expressed the wish that the location would help in achieving mutual understanding as was demonstrated when part of the Oslo Agreement between the Israelis and Palestinians had been drafted at Lysebu.

Before introducing the Agenda, on behalf of the Commission Dr Marabelli, Chairman of the EUFMD, extended thanks to the Norwegian Government for their invitation to host the meeting in Norway, to the Royal Ministries of Foreign Affairs and Agriculture for their valuable interest and support, and most particularly to Dr Bakken and his staff for their assistance and very efficient local organization despite the many difficulties caused by the severe winter weather conditions. He then welcomed the members of the Committee and observers. He stated that he was particularly pleased to welcome the observers from the Russian Federation , Dr Avilov, CVO and Professor Gusev, Director of the ARRIAH at Vladimir, who had agreed to attend for the purpose of discussing future measures to be taken in the Caucassian and Asiatic regions to prevent the spread of FMD virus to Russia and to Europe.

Following the decision taken at the 61st Session, Dr Le Comte, Norway, provided support for interpretation. The French observer at the meeting thanked Dr Bakken for having made provision for this.

Item 1 – Adoption of the Agenda

The following Agenda was proposed to and adopted by the meeting. Before proceeding to the presentation and discussion of the various agenda items, Dr Marabelli suggested that a closed session be held in the afternoon to discuss the Agenda for the 33rd General Session.

Item 1. - Adoption of the Agenda.

Item 2. - FMD situation in Europe and in other regions
- Final results of the serosurvey in the Balkans
- Report of the Tripartite Group Meeting of 11 November in Rome

Item 3. - Report on the FMD situation and control Programme in Turkey
- Report on the situation of the new variant of Type A virus in Iran and in Turkey
- FMD control measures sponsored by EU
- Report on the EUFMD/EC mission to Turkey

Item 4. - Situation in CIS countries
- Report on the Tripartite Meeting of 24 November in Moscow

Item 5. - Report of the Chairman of the Research Group on the Meeting of the Research Group held in Pirbright, UK from 14 to 18 September 1998
- Establishment of a Working Group on the European Pharmacopoeia

Item 6. - Financial matters: accounts 1997 and 1998 and budgets 1999 and 2000.

Item 7. - Review of the conclusions and recommendations of the 32nd Session and of the 61st Session of the Executive Committee.
- Report on the notification on Contingency Planning by the Member Countries
- Guidelines for awareness campaign on the risk of introduction of FMDV in member countries by travellers and tourists.

Item 8. - Agenda for the 33 rd Session of the Commission 7-9 April 1999 in Rome

Item 9. - Any other business.

Item 10.- Adoption of the draft report.

Item 2 – FMD situation in Europe and in other regions

The Secretary of the Commission gave a short presentation on the situation in Turkey and the Caucassian region ; he circulated maps presenting the new Type A in Turkey and the situation in the Caucassian region (Appendix 1). He stressed that although no outbreaks had occurred since the end of November 1996, the threat of introduction into Europe from Turkey and the Middle East persists.

Dr Liven asked what was the situation of FMD in Iraq. The Secretary informed him that Iraq had contacted FAO in recent weeks to report that FMD had occurred and that they urgently needed to vaccinate. Dr Leforban explained that due to the political ban the provision of vaccine to Iraq is not authorized. Therefore, he feared, based on past experience, that FAO will not be able to supply the vaccine requested by Iraq.

Dr . Donaldson presented the final results of the serosurvey in the Balkans. Before starting his presentation he reminded the meeting that airborne transmission of FMDV was first noticed in Scandinavia when climatic conditions (fog) in autumn and spring were favourable for transmission of the virus from Germany. However, UK authorities were of the opinion that long distance FMD spread was more likely due to carriage of virus by birds. Subsequent work showed that transmission of FMD virus on the wind was possible. He also recalled two most recent outbreaks which were attributed to airborne virus spread - the 1966 outbreak in Sweden that originated in Denmark and the 1982 epidemic in Denmark that had been traced to East Germany.

After recording the history of the epidemic in the Balkans, he presented the conclusions which are given hereunder and are also included in Dr DJ K Mackay's Report to EC on this subject (Appendix 2).

Conclusions

- The survey detected no evidence of the circulation of FMD virus in the FYR of Macedonia since 1996 and in Albania since 1997.
- There was no evidence in either country of virus activity during the course of the surveys.
- In the FR of Yugoslavia no evidence was found for FMD viral activity, either present or past.
- NS protein antibody tests were useful for the detection of viral activity in vaccinated populations. Their use is recommended as part of future serological surveys for FMD.
- In surveys to detect viral activity following outbreaks, it is important that the age of the animals sampled is recorded since accurate ageing is essential to enable a full interpretation of the results.

During the discussion Dr Bakken asked whether the test for non-structural protein permits separation of vaccinated and non-vaccinated animals. Dr Donaldson explained the basis for the test: antibodies to non-structural proteins are induced only when the virus replicates in the host whereas antibodies to structural protein correspond to the capsid of the virus and are induced both after vaccination and infection but this scenario may be complicated when vaccinated animals are infected and also by the fact that unpurified vaccine may contain non-structural proteins. With regard to the question concerning the validation of the test, he explained that the first phase of concerted action within the EC has been completed successfully but further work is needed for practical validation under different conditions.
In a short presentation with slides, Dr De Clercq very clearly presented the principles of the tests for detection of antibodies to NS proteins for differentiation of infected and non-infected animals. The tests are not serotype dependent and so all serotypes can be detected with one test which may be an advantage in certain circumstances.
The risk of false positive or false negative results may be overcome by using different NS proteins or panels of NS proteins in the same test.
As further research is needed in respect of these tests Dr De Clercq suggested:

1. the determination of size of the samples which should be collected to assess the situation in one region/herd/flock,
2. the need for a fully validated test which could be widely used as a kit

In response to a question from Dr. Bakken, Dr. Donaldson and Dr. De Clercq explained that there are technical reasons why a marker vaccine has not been developed for FMD as it has for CSF and Aujezsky's disease. It also explains why a test for NS proteins has been developed.

Dr Belev indicated that the outbreak in The Former Yugoslav Republic of Macedonia (FYR of Macedonia) has already cost 30-35m dollars and raised the question of the requirements needed by the Former Yugoslav Republic of Macedonia to be recognised as free of FMD. Dr. Donaldson indicated that the survey provided no evidence of the circulation of virus at the time of the survey (1997).

Dr De Clercq continued by saying that the survey provided evidence that infection had spread to sheep within affected villages and that this was valuable information provided by the survey.

Dr Westergaard informed the meeting that the report of the sero survey had been circulated to the EU Standing Veterinary Committee who reviewed the information and agreed with the conclusions. There is now a request from FYR of Macedonia for an EU mission before trade can resume. The Committee agreed that as far as OIE rules are concerned, as the 2 year period since vaccination has elapsed, lifting of restrictions could be considered.

Dr Balint questioned the statement that antibody detection in animals over 6 months was a clear evidence of infection.

Dr Panagiotatos emphasised the need for strict guidelines on interpreting the results of the serosurvey and enquired about the follow-up actions to ensure permanent control and surveillance of FMD.

Regarding the standardisation of the NS protein antibody tests, Dr Donaldson informed the meeting that the first phase of the programme, co-ordinated by the WRL, has been completed with satisfactory results and that the tests have been validated for cattle, sheep and pigs but not for goats. He also stated that the second phase, co-ordinated by the National Laboratory of Germany, is in progress but that further validation in the field is necessary, especially on the persistance of antibody titres and on titres in vaccinated animals.

In conclusion, the Session considered that:

1. the serosurvey in the Balkans had produced very valuable results
2. decisions associated with the results have not yet been taken
3. there is an urgent need for the EC DGVI to ask DG XXIV to field a misson to the Former Yugoslav Republic of Macedonia so that a decision could be proposed to the SVC, if the outcome of the mission is favourable.

Tripartite Group Meeting in Rome

The Secretary of the Commisssion then reported on the meeting of the Tripartite Group in Rome on 11 November (Appendix 3). Firstly, he explained that the unusual venue was due to travel problems and not related to any difficulties between the Veterinary Services of the three countries. The conclusions of the meeting were reviewed country by country.

Dr Belev stated that the Tripartite Group, established 35 years ago, demonstrated its effectivenesss in co-ordinating FMD control at the regional level and that this concept should also be applied to the control of the disease in the CIS countries.

Dr De Clercq was very supportive of the first workshop organised by Greece for the three national laboratories in the region and suggested that collaboration between the 3 institutes should be reinforced. He was also in favour of using the test for NS proteins in Bulgaria. In conclusion, the session endorsed the conclusions of the Tripartite Group meeting and suggested that the experience gained with the Tripartite Group should be extended to other regions.

Item 3 – Report on the FMD situation and control programme in Turkey

Dr Tufan reported on the situation in Turkey (Appendix 4) and explained the three different strategies applied in Thrace, WBZ and the rest of Anatolia.

In total 6,829,203 out of 11,153,148 large ruminants had been vaccinated (61%) and 6,311,368 out of 39,378,906 small ruminants had been vaccinated (16%) with big differences in the vaccination coverage in the provinces.
68 outbreaks of FMD have been reported so far in Turkey in 1998, 34 due to type O, 13 to type A and 21 not typed. No type A has been isolated since July 1998. He then reported on the emergency vaccination campaign in Thrace against the new type A virus. 311,472 out of 468,160 large ruminants (67%) and 636,550 out of 953,179 small ruminants (67%) have been vaccinated with the monovalent vaccine and 53,100 doses were left after the campaign. This will be used for emergency situations in accordance with the recommendations of the Tripartite Group meeting.

During the discussion Dr Panagiotatos drew attention to the fact that type O was still predominant in Turkey and, felt , therefore, that the regular programme of vaccination with bivalent vaccine should be continued and reinforced.

The Secretary of the Commission stressed that the vaccination coverage in the emergency vaccination campaignThrace was less than that foreseen and he did not see any difference in the strategies and in the vaccination coverages between the WBZ and the rest of Anatolia. He questioned the rationality of maintaining the two zones under the current situation.

EC funded program: Dr Westergaard and Dr Tufan explained that despite excellent cooperation the EC-funded program faced difficulties in its implementation due to different understandings on the part of the Turkish authorities of the EC financing system . However,

the areas where difficulties have occurred have been identified and bilateral discussions were taking place to solve the problems and discuss the next phase.

With regard to the independant testing of vaccines produced in Turkey, Dr Westergaard reported that a call for tenders is being prepared so that the vaccine should be rapidly tested.

Dr Donaldson then presented an illustration which summarised the evolution of type A and O viruses in Turkey between 1965 and 1998. The type A 22 virus introduced in 1965 slowly evolved and was replaced by a different type A in 1985 which then evolved at a similar rate as the previous A strain before it too dissappeared. By contrast, type O has evolved at a faster rate and persisted in Asiatic Turkey (Appendix 5). He predicted that the behaviour of the new variant of type A could be similar. In response to a question as to whether it would be necessary to keep the A22 Mahmatli in the vaccine to be used in Turkey, he replied that if there was no evidence of circulation of A22, the A Mahmatli strain should be abandoned and replaced by the new A strain.

Item 4 – Situation in CIS countries

Dr Marabelli stated that due to the extension of the limits of Europe, its security on the eastern frontier should be reconsidered. The number of trading partners of European countries has also been increased.

Dr Avilov thanked the Committee for having invited him to address the meeting on the question of the situation of FMD in CIS countries and warned that this situation is very serious and may be a threat to many countries. He presented figures and maps (Appendix 6) covering the situation between 1986 and 1991, during the time of the USSR, when the buffer zone (BZ) was active and the situation over the last 7 years ,1991–1998, since the buffer zone has started to disappear. In 1996 nine outbreaks were reported in five Republics, in 1997, 48 in six Republics and during the first 5 months of 1998, eight outbreaks in three Republics.

The outbreaks were due to both O and A types, including the new type A which occurred recently in Armenia. Type Asia 1 is also suspected in Asiatic Republics.

He then explained the reasons for this deterioration:

- unfavourable situations in neighbouring countries
- indefinite borders
- absence of border control
- local conflicts with associated migration of populations
- tourism
- economical situation

In contrast, the situation in Russia where the BZ has been maintained has so far been satisfactory with only 2 single individual outbreaks associated with an escape of the virus from the laboratory (1993) and to the importation of pork meat (1995). However, due to lack of resources they must now reduce their BZ to a small strip which is unlikely to be effective in stopping the virus.

He explained that Heads of Veterinary Services of CIS countries have decided to keep and develop the BZ. The vaccine can be produced by ARRIAH, Vladimir, which could also co-ordinate its implementation. A vaccine bank should also be created for emergency situations.

The cost for vaccine was estimated at 15 m dollars (30 cents/dose of bivalent vaccine).

A formal request from CIS countries signed by all CVO's is being forwarded to international organizations (Appendix 7).

The countries participating in the BZ can guarantee that

- they will identify the animals,
- the control of animal movement by issuing special certificates will be reinforced,
- in case of disease international organizations will be informed and ring vaccination will be practised.

Pf. Gusev informed the meeting that 1.5 million doses of vaccine against the new type A Armenia are already available in Vladimir.

Dr Belev summarised the action that he had taken on behalf of OIE since 1996 for the BZ:

1. he met all Presidents or Prime Ministers of CIS countries,
2. after the OIE Conference in Prague, a questionnaire has been sent to all CVO's to get precise information on the disease situation,
3. a meeting was organised in Paris on 13 November between the three international organizations,
4. a meeting was held in Moscow with the Deputy Prime Minister of the Federation of Russia on 23 November. OIE and EUFMD were represented at this meeting.
5. the CVO's of CIS countries met in Vladimir on 24 November to discuss the BZ and a joint document requesting the BZ has been signed by all CVO's.

During the discussion, Dr Aslan, Turkey, stated that he could not understand what Dr Avilov intended. He informed the Committee that there was no import or export between Turkey and Armenia and that European countries had not complained about Turkey. Dr Avilov explained that he was not accusing Turkey of being the source of the virus; he had only indicated on his maps the countries where the situation of FMD was unfavourable and therefore could be a possible source of virus. The Vladimir Laboratory also confirmed that the Armenian strain was similar to the A Iran/96 strain but the origin of the Armenian outbreak is unknown..

Dr Belev was of the opinion that thousands of kms of border cannot be efficiently controlled and the black market, illegal trade, and false certification may be important in certain regions and play a role in the spread of the disease.

A general discussion on the situation in CIS countries followed.

Dr Marabelli thanked the Russian delegates for their clear presentation. He stated that the wish of CIS countries to co-operate with Europe to keep or re-establish the BZ should be encouraged despite the practical difficulty this represented.

The prerequisite for financing by international organizations EC (or EUFMD) is to get comprehensive information on the situation and on the feasibility of the control programme and, therefore, a mission should be organized for this purpose.

Dr Celeda also expressed his satisfaction with the progress that had been made over the past two years for the BZ in CIS countries thanks to the efforts of OIE and the other international organizations which are now joining the OIE initiative.

The joint programme proposed is important especially for eastern Europe and the position of the head of the FMD Institute of Russia must be supported. For him countries concerned by the BZ should first prepare a plan and a programme mentioning particularly the constraints that they may have. He welcomed the signature of a document by the CIS countries. Veterinary Services should be stimulated now to produce comprehensive information . Financial support could then be released. A procedure for monitoring the utilisation of the money should also be established.

The Committee agreed to the suggestions of Dr Marabelli and Dr Celeda and recommended that:

1. **The work of the OIE Regional Laboratory, ARRIAH, Vladimir, in co-ordinating the control of FMD in CIS countries and in the establishment of a vaccine bank should be supported.**

2. **A Tripartite Group (OIE/FAO/EC) should be established based on the model of the one in the Balkans to monitor the situation in the Region and the progress in the vaccination campaign.**

3. **The FAO/EC Trust Fund should be used for specific actions in emergency situations under the co-ordination of the OIE Regional Laboratory , ARRIAH, Vladimir, up to a maximum of US$400,000.**

4. **A joint OIE/EUFMD/Vladimir/EC mission for an evaluation in respect of the FMD situation, identification and control of animal movement should be organised. The risk associated with this situation of FMD spreading to Europe should also be analysed by the mission.**

The establishment of the comprehensive Buffer Zone as requested by CIS countries should be considered at a later stage i.e. after the four first recommendations have been implemented and the financing through EC (possibly the TACIS programme) could be guaranteed.

Dr Avilov thanked the Committee for their proposals and accepted them. Considering the particular husbandry systems in certain countries (transhumance etc), he requested clarification on:

1. timescale of the activities
2. the list of the countries which will be visited

He suggested that a questionnaire should be sent to CVO's before the mission so that they have time to prepare the tables and statistics that will be required by the mission..

It was agreed that:

- **the joint mission should take place in March at the latest**
- **emergency vaccination if needed should be carried out before animals are moved to pasture**

Item 5 – Report of the Chairman of the Research Group on the Meeting of the Research Group held at Pirbright, UK, from 14 to 18 September 1998

Dr De Clercq presented the conclusions and recommendations of the last Session of the Research Group held in Pirbright from 14 to 18 September held jointly with the commemorative celebrations for 40th the anniversary of the designation of the Pirbright Laboratory as the World Reference Laboratory for FMD (Appendix 8). He first thanked Dr Donaldson for his outstanding organization and stated that considering the number of participants present and of papers presented, the meeting had been very successful. Observers from China had attended the meeting for the first time.

He stressed the fact that reference sera for 3 FMDV types were chosen as a result of standardisation Phase XV.

The Committee agreed that this work should be continued in Phase XVI including all member states with laboratories expressing the wish to participate.

The Committee endorsed the recommendations of the Research Group and in particular the need for further research/development on

- the species adaptation and new variants of FMD virus
- diagnostic techniques and persistence of FMDV in ruminants
- differential serology using NS proteins
- inactivation of FMD virus
- quality assurance in FMD laboratories

The Committee also accepted the proposal of the Research Group that an ad hoc Working Group on EP should be established under the Commission to make proposals for Amendments to the FMD Monograph.

The Committee endorsed the recommendation of the Group that Bulgaria should provide a protocol and detailed report of their serosurvey.

Item 6 – Financial matters: accounts 1997 and 1998 ; budgets 1999 and 2000

The Secretary presented the accounts prepared by FAO for the Trust Funds monitored by the Commission i.e. TF 904200/MTF/INT/011/MUL, TF909700/MTF/INT/004/MUL and TF911100/MTF/INT/003/EEC (Appendix 9).

With regard to Statements 2 and 3 he pointed out that no progress had been made in respect of the arrears of Yugoslavia.

The Secretary then presented the revised budget for 1998 and provisional budgets for 1999 and 2000. It was agreed that the annual contribution of EUFMD to the WRL would be increased to US$35,000 starting from 1999 and that this would be reviewed after two years. It was further agreed by the Committee that the Chairman should address a letter to FAO recommending that an increase in the annual contribution of the Regular Programme to the WRL should also be considered. The contribution for the Collaborative Laboratory Study (Phase XVI) was set at US$22,400 – US$11,200 for 1999 and US$11,200 for 2000.

The Committee, having given due consideration to the proposed revisions, approved and adopted the accounts and budgets of the Commission as presented.

Item 7 – Review of the conclusions and recommendations of the Thirty-second Session and of the Sixty-first Session of the Executive Committee

Guidelines for Awareness Campaign on the risk of introduction of FMDV in member countries by travelers and tourists

Dr. Leforban presented a qualitative analysis of the risks to Europe from tourists, travellers and transport companies (Appendix 10). He stressed the risks from food and other products of animal origin, and suggested tighter controls at all border crossings and a focus on transport companies dealing with infected countries. He also suggested a focus on areas such as free port facilities where goods are not under the jurisdiction of the national veterinary Authorities.

Dr. Panagiotatos stressed that as regards free port facilities, such as in Pireaus, no blame should be attached to the national veterinary Authorities as these ports are simply ports of transit not ports of arrival. He suggested that countries should not be importing animal products from infected countries.

Dr. Donaldson added that in New Zealand tourist baggage is now being scanned with a new x-ray machine that can detect meat, even meat off the bone.

Dr. Leforban indicated that awareness campaigns should be targetted at tourists and migrant workers with the distribution of leaflets at the border. A draft copy of the leaflets has been prepared, and assistance will be offered in translating it into other languages.

Status of Contingency Planning in the member countries

John Ryan presented the findings of a questionnaire designed to assess the status of member countries' Contingency Plans, as requested by the 32nd Session of the Commission (Appendix 11). In general the response rate was good, especially in the EU countries, but in the non-EU countries many did not respond or supply a copy of their plans. Most Veterinary Services have the necessary legal powers to perform all aspects of disease control. The weakest powers relate to provisions for compensation to farmers.

As comparing financial provisions is difficult as the costs and implications of outbreaks vary considerably between countries, it was suggested that the important financial considerations were rapid availability of funds in a crisis and the development of compensation funds for farmers.

A direct chain of command exists in almost all countries but the structre of national and regional disease control centres varies. It was emphasised that no structure was ideal but that what is important is that the limitations of each structure is known and that there is clear leadership in a crisis.

As procedures for sampling varied significantly between countries it was again suggested that the method is not as important as the result which should be: rapid sampling by well-equipped competent vets or technicians in the field followed by rapid and early diagnosis and characterisation of virus strain by a competent laboratory and/or WRL.

Training programmes were not a strong enough feature in the plans.

It was argued that the level of reporting of suspicious cases is linked to the general level of awareness of the disease, if this is correct then the awareness in some countries is very low as no suspicions of vesicular disease have taken place for some time.

Awareness campaigns also varied considerably and as all services have limited resources it was suggested that long term strategic use is made of them to increase the general awareness in the population.

Provisions for Emergency Vaccination varied also across countries so it was suggested that all countries examine their information and decision-making system and whether they have access to the necessary equipment and vaccine bank.

Constraints mentioned in the questionnaire were: lack of funds, lack of personnel, lack of co-operation of other ministries and the industry, the role of private veterinary practitioners, access to vaccine banks, no outbreaks of FMD for many years, difficulty in getting priority for FMD and environmental issues regarding the disposal of the carcasses.
Suggestions on the role of EUFMD were very varied also. The most popular roles identified were to inform and co-ordinate, to disseminate information, to organise meetings and training courses and to promote regional co-operation. There was some support for the roles of advising on contingency plans, assistance in getting access to vaccine banks, preparation of guidelines and provision of equipment. Specific support was requested for regional co-operative ventures, technical advice, training and simulation exercises, teams of experts, helping non-EU countries, direct grant aid, publicity and disease awareness. It was suggested that the variation in responses reflects the different economic, political and disease status and therefore needs of member countries.

It was concluded that the questionnaire was a useful exercise and that it should be repeated regularly to track improvements or slippages in Contingency Planning. It is hoped for a better response from non-EU countries and an increase in the number of plans submitted. It was reiterated that assistance would be given in the preparation or validation of contingency plans. It was confirmed that a small stock of non-perishable equipment had been ordered for Rome.

It was suggested that overemphasis was placed on shortages of finance, and that other resources such as Leadership and sound management are also important and should not be forgotten. It was emphasised that validation of contingency plans by simulation exercises should be a priority for all countries.

During the discussion Dr Bakken proposed that guidelines based on the results of the questionnaire should be prepared by the Secretariat for the Thirty-third Session. This proposal was accepted by the Committee.

Item 8 – Agenda of the 33rd Session of the Commission, 7-9 April 1999

The Agenda was discussed and agreed by the Executive Committee (Appendix 12).

Item 9 – Any other business

- Dr Eloit confirmed the invitation for the Research Group to hold their next Session at CNEVA, Maisons-Alfort, France, in September 1999.

- The next Session of the Executive Committee will be held in autumn 1999.

- Dr Panagiotatos, confirmed that the next Session of the Tripartite Group could be held in Athens.

Item 10 – Adoption of the draft report

The draft report was adopted subject to agreed amendments.

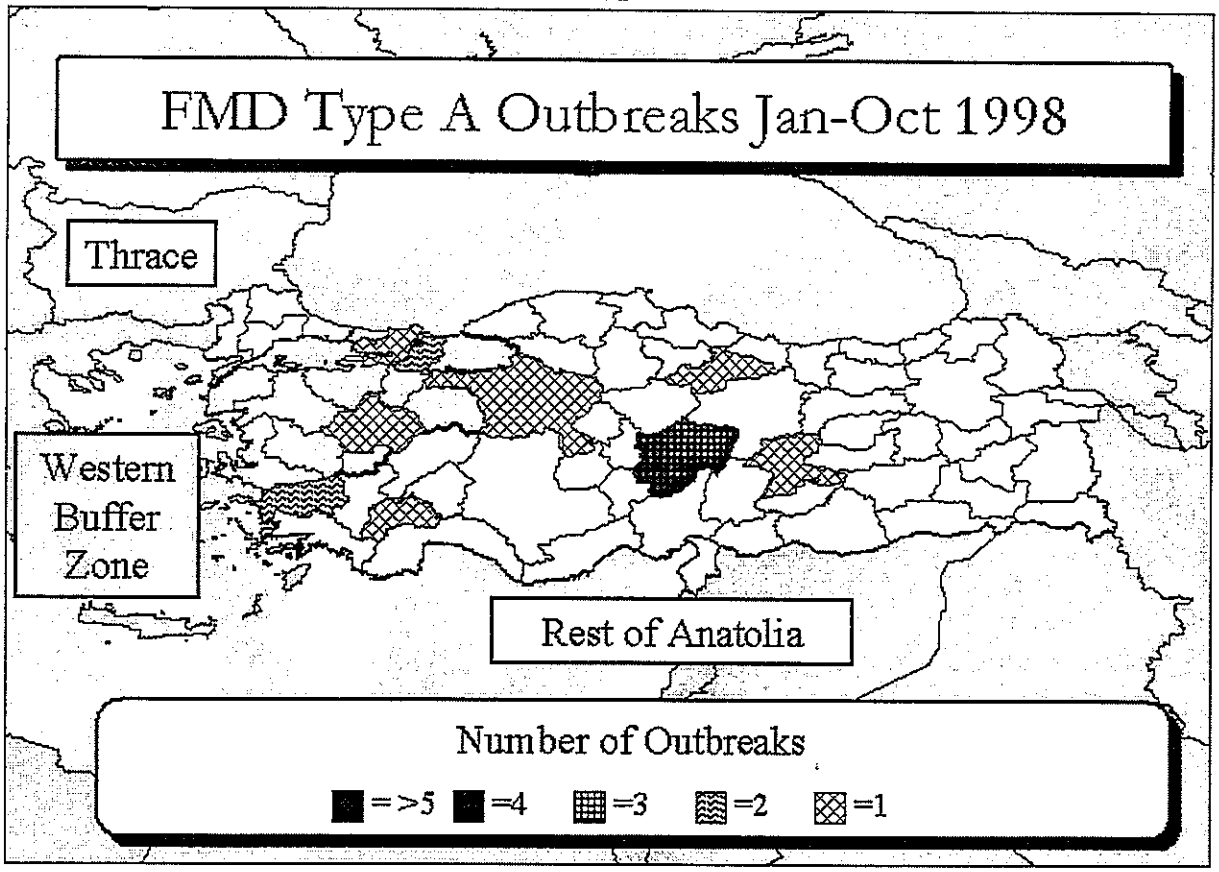
Closing statement

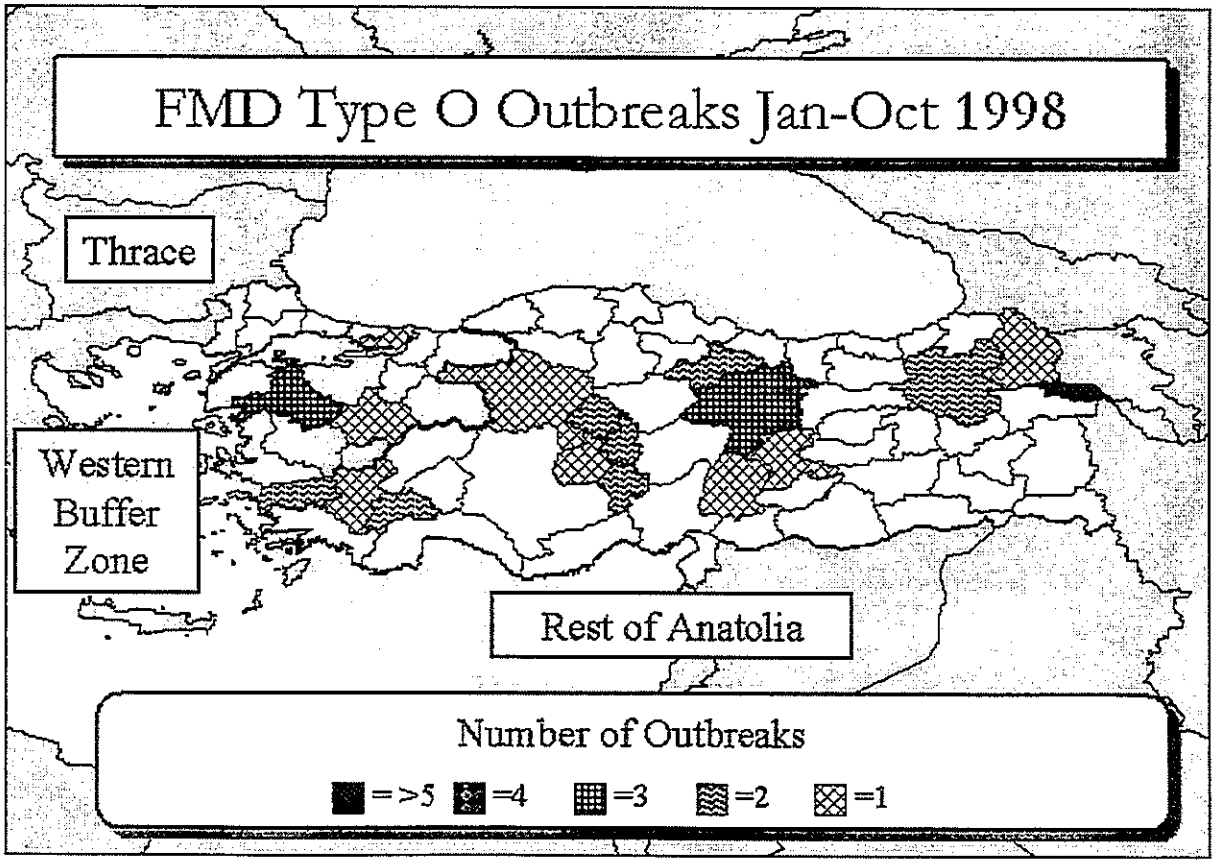
Dr Marabelli said that the meeting had been very successful and positive. The participation of the Ministry of Foreign Affairs, Norway, was very much appreciated. He extended thanks to the Norwegian authorities for the outstanding hospitality offered during the Session. He also extended thanks to Drs Naess, Director of the National Veterinary Institute and Liven, CVO, for their participation and assistance and to Dr Lecomte for the interpretation facilities. He thanked members of the Committee and observers for their contribution.

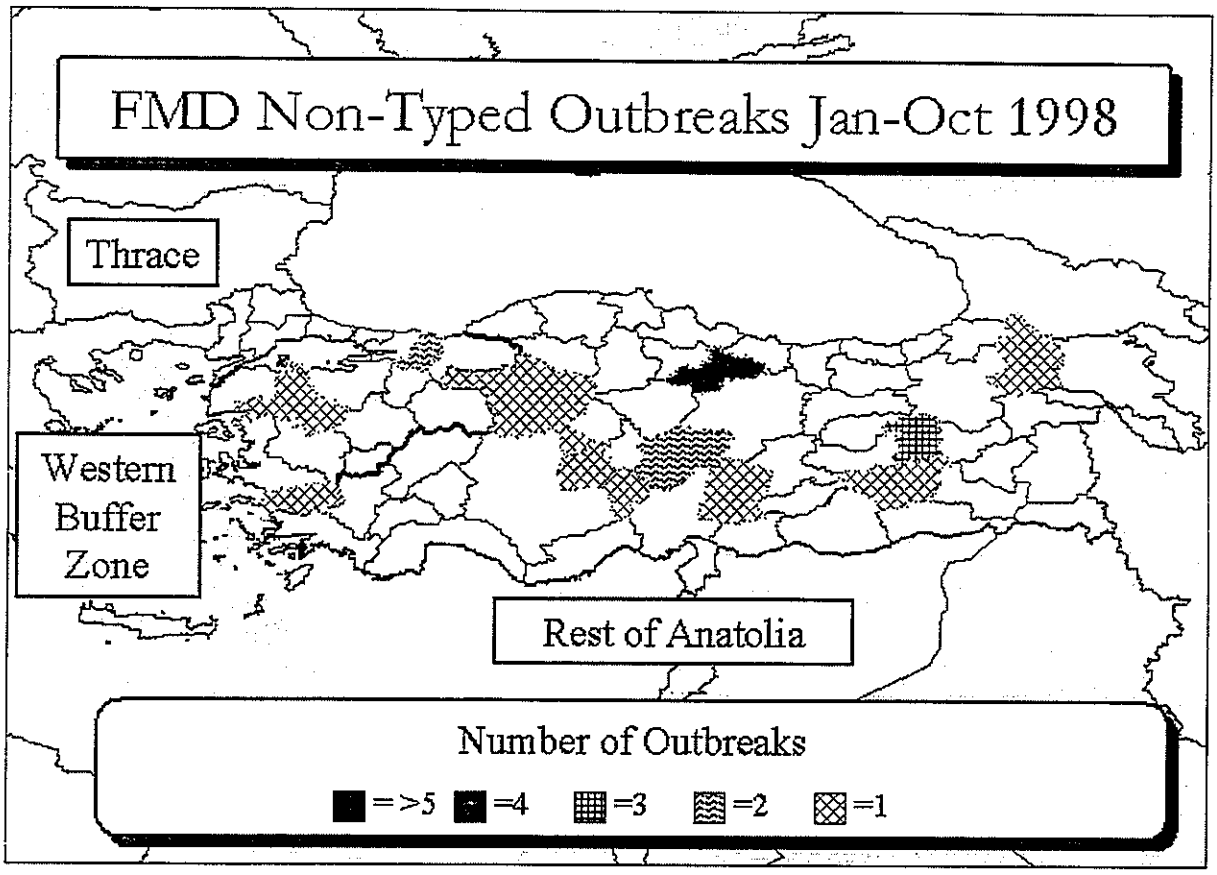
Dr Bakken stated that it had been a great pleasure for him to organise the Sixty-Second Session of the Committee in Norway and he wished all present a pleasant return journey to their home countries.

Appendix 1

Outbreaks of Type A, Type O and Non-Typed FMD Virus in TURKEY to Oct. 1998







Data kindly supplied by the Ministry of Agriculture and Rural Affairs, Republic of Turkey.

FMD situation due to the new type A variant in the Transcaucasian region in 1998

The situation in the Transcaucasian area is of great concern. The OIE Regional Reference Laboratory for FMD of Vladimir, Russia, has reported that they have isolated a strain of type A very close to A/Iran 96 from FMD cases reported in cattle in the Amasia district of Armenia.

Appendix 2

Evaluation of serological surveillance for antibody to foot-and-mouth disease virus in the Balkans 1997-1998 : Implementation of Commission Decision 97/432/EC

INTRODUCTION

During the period May-August 1996 an epizootic of foot-and-mouth disease type A occurred in the Balkan region, affecting Albania, the Former Yugoslav Republic of Macedonia (FYR of Macedonia) and the Federal Republic of Yugoslavia (FRY). The epizootic was brought under control by either a slaughter policy alone (FRY) or by a slaughter policy combined with vaccination (Albania and FYR of Macedonia). The European Union provided assistance to the control program through the supply of vaccine and expert advice. In July 1997 the Commission of the European Communities passed Commission Decision 97/432/EC providing assistance to the three countries involved to carry out a serological survey with the following objectives:

- to assess the level and distribution of antibodies to FMD virus type A resulting from previous infection and/or vaccination.
- to determine the geographical extent of past or present infection with FMD virus type A.
- to determine whether or not FMD virus continued to circulate in the region.
- to evaluate under field conditions newly developed ELISA's which measure antibody to the non-structural (NS) proteins of FMD virus. Antibody to NS proteins can be used as an indirect marker of infection with FMD virus, irrespective of whether or not animals have been previously vaccinated.

MATERIALS AND METHODS

Assistance was provided by the Institute for Animal Health, Pirbright, UK to the FRY, by the Danish Veterinary Institute for Virus Research, Lindholm, Denmark to the FYR of Macedonia and by the Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia, Brescia, Italy to Albania.

Samples were collected by the veterinary services of the respective country and were examined by the collaborating EU laboratory. Duplicate samples were kept by the collecting country for comparative testing. Samples were examined for antibody to FMD virus type A. Samples positive for antibody to structural proteins were subsequently examined for antibody to one or more NS proteins.

RESULTS

Detailed reports of the individual surveys were produced by the participating laboratories and the results will not be repeated here.

CONCLUSIONS

The following conclusions can be drawn from examination of the results as a whole in relation to the objectives set.

Objective 1

To assess the level and distribution of antibodies to FMD virus type A resulting from previous infection and/or vaccination

Measurement of antibody to the structural proteins was effective at estimating the prevalence and titre of antibodies following vaccination. Unfortunately, due to the delay between vaccination and the collection of samples, the results were of limited use in terms of quality control of the vaccine used. The absence of antibody to structural proteins was the most important factor in declaring FRY free of evidence of persistence of FMD virus.

Objective 2
To determine the geographical extent of past or present infection with FMD virus type A.

The detection of antibody to NS proteins in some animals provided clear evidence of previous exposure to live, replicating FMD virus and showed that not all exposed animals had been slaughtered as part of the control procedures. In terms of geographical distribution, the great majority of animals positive for NS protein antibody were detected within the areas classified as previously infected and in which vaccination had taken place. However, in both Albania and FYR of Macedonia, animals seropositive for antibody to NS proteins were found outside the declared infection zones. In both cases, the seropositive animals were detected adjacent to recognised infected/vaccinated areas and animals from areas geographically distant to these areas were negative.

Measurement of antibody to NS proteins was therefore extremely useful at detecting unrecognised spread of infection either geographically or between species. In FYR of Macedonia and in Albania, clinical disease had not been recognised in sheep or goats. Small ruminants had not been vaccinated in FYR of Macedonia but were included in the vaccination campaign in Albania. The detection of sheep and goats seropositive for both structural and non-structural antibody provided clear evidence that these species had been infected.

Conversely, the absence of antibody to NS proteins in all animals sampled in FRY, even those positive at low titre for antibody to structural proteins, supported the conclusion that FMD virus did not persist in that country.

Objective 3
To determine whether or not FMD virus continued to circulated in the region.

Measuring antibody to NS proteins provides only indirect evidence of past or present infection. However, by using an appropriate sampling protocol it was possible to draw conclusions about the likely time at which infection occurred and, therefore, the likelihood that the virus might still be present. In the FYR of Macedonia there was initial confusion over the age of the animals which were seropositive for antibody to NS proteins. Continued circulation of virus can be inferred from the detection seropositive animals born after the last recorded outbreak but older than approximately 6 months i.e. too old to still have maternal antibody. Initial reports that young, seropositive animals had been detected in the FYR of Macedonia were subsequently amended when it was declared that the animals were, in fact, older than 3 years. In Albania, the only evidence of circulation of virus since 1996 was the detection of NS protein antibody in two animals belonging to a single owner. In neither survey was evidence of active virus circulation detected in the form of seroconversion for antibody to NS proteins in sequential samples collected from the same animal.

Care must be taken in interpreting the results of such surveys as evidence of whether or not the virus is still present as only a small proportion of the population is sampled and definitive evidence of FMD persistence can only be obtained by virus isolation from

carrier animals. Nevertheless the surveys showed that measurement of antibody to NS proteins is extremely useful at identifying potential areas of viral activity, even more than one year after the occurrence of outbreaks, so that attempts to isolate the agent can be focussed appropriately.

Objective 4
To evaluate under field conditions newly developed ELISA's which measure antibody to the non-structural (NS) proteins of FMD virus.

The surveys showed that measurement of antibodies to NS proteins is a valuable adjunct to conventional FMD serology. The assays were reliable, reproducible and produced results which were consistent with the situation in the field. NS protein antibody assays can provide valuable additional information for risk assessment of the likelihood of FMD virus persistence in a population.

RECOMMENDATIONS

1. In future serological surveys measurement of antibody to structural proteins should by supplemented by measurement of antibody to NS proteins to identify previous infection in animals whether vaccinated or not.

2 The EU should sponsor further research on the role that measurement of antibody to NS proteins can play in the operational control of FMD. In particular, epidemiological studies are required in the field to determine the sampling rates that are necessary reliably to detect FMD virus infection within an epidemiological unit for each of the species affected and to study further the link between antibody to NS proteins and the carrier state.

3. Contingency plans, including appropriate financial reserves, should be in place at the Commission to avoid delay between the identification of a need for a serological survey and its execution.

4. Emphasis must be placed on the correct ageing of animals when serological surveillance for antibody to NS proteins is carried out as this information is essential to determine correctly the likely time of exposure to the virus.

D Mackay
24 September 1998

Appendix 3

REPORT OF THE TRIPARTITE GROUP MEETING HELD AT FAO HQ, ROME, ITALY, ON 11 NOVEMBER 1998

Participants

Bulgaria
- Dr. Y. Ivanov, Deputy Director General of the National Veterinary Services, Ministry of Agriculture, Forest and Agrarian Reform

Greece
- Dr V. Stylas, National Veterinary Service
- Dr D. Panagiotatos, Animal Health Directorate, National Veterinary Service

Turkey
- Dr. Celal. Ozcan, Director General, General Directorate for Protection and Control, MARA
- Dr. Musa. Arik, Chief of Section, Department of Animal Health, General Directorate for Protection and Control, MARA

EC
- Dr J. Westergaard, DG VI , BII, European Commission, Brussels

OIE
- Dr. N. Belev, President of the Regional Commission for Europe

FAO
- Dr A. Sawadogo, Assistant Director General, Agriculture Department
- Dr Y. Cheneau , Chief, Animal Health Service

EUFMD
- Dr R. Marabelli, Chairman of the European Commission for the Control of Foot-and-Mouth Disease
- Dr Y. Leforban, Secretary of the European Commission for the Control of Foot-and-Mouth Disease

Dr Cheneau, Chief, Animal Health Service, welcomed the participants on behalf of FAO. He explained that the FMD situation in middle East continues to be a source of concern and FAO together with the EUFMD Commission are actively involved in several programmes with FMD as a major component. FMD is a priority disease for the EMPRES programme as well as for the RADISCON FAO programmes. There is ongoing and active collaboration between the OIE and the EC in the implementation of these programmes. An FAO Technical Co-operation Project between Turkey and Iran is also in preparation in the areas of FMD vaccine production, surveillance and control. The Tripartite concept that has been developed between the participating three countries is now being taken as an example for co-operation in the CIS countries. FAO fully supports this form of co-operation between the international organisations and the countries concerned.

Dr. Marabelli, Chairman of the European Commission for the Control of Foot-and-Mouth Disease thanked Dr Cheneau and FAO for having hosted and organised the meeting. He then presented the background and objectives of the meeting. This meeting is the first to have been held since the 61st Session of the Executive Committee held in Antalya Turkey in May 1998. Since then, preventive vaccination in Thrace against the new type A variant has been organised and a report on this campaign will be presented by the Turkish delegation. Dr Marabelli chaired the meeting and the provisional agenda was adopted. The FMD situation and the prophylactic measures used in controlling the disease in the three countries were reviewed.

TURKEY

Dr. Musa Arik presented the report. He reported that 54 FMD outbreaks were reported in 1997, of which 51 were due to type O and 3 to type A. Between January and October of 1998, 68 outbreaks were reported: 34 were due to type O and 13 to type A (presumably the new variant strain) and 21 were untyped. Seventeen of these outbreaks were reported in the in the Western Buffer Zone (6 type A, 7 type O, 4 untyped). Preventive vaccination (with bivalent O1 Manisa / A Mahmatli) was resumed in Thrace at the beginning of 1997. Cattle were vaccinated three times in 1997 and once in spring 1998. Small ruminants were vaccinated once in 1997 and once in 1998. The vaccination coverage for the 1998 campaign was estimated to be 59 % in cattle and 47.5 % in small ruminants. In addition to these campaigns, an additional round of vaccination was carried out in Thrace using a monovalent vaccine against the new type A/ Iran 96 (see below).

Dr Arik also presented the outlook for vaccine production and control in Turkey. Vaccine production in Sap for 1998 is projected to be 11 million doses of A Mahmatli and 10 million O1 doses. MARA is in favour of the rapid implementation of the EC decision No 98/64/EC with regard to independent testing of vaccines produced in Sap and in Vetal. **The meeting recommended that the EC or EUFMD should rapidly issue a call for tenders for the independent testing of trivalent (O1, A Mahmatli, A/Iran 96) and bivalent (O1, A Mahmatli) vaccines.**

Dr Arik then reported on the vaccination campaign against the new type A variant in Thrace in 1998. The campaign started on the first week of August. **In total, 307,858 out of 468,160 large ruminants (66%) and 626,758 out of 953,179 small ruminants (also 66%) have been vaccinated so far in Thrace.** The campaign is still in progress in Edirne Province where 59% of large ruminants and 51% of small ruminants are now vaccinated. **Turkey is requested to report to the EC and EUFMD the final figures for vaccination in Thrace at the end of the campaign and at the latest to the Executive Committee meeting in Oslo on 26-27 November.**

Dr Leforban then reported on the joint EUFMD/EC mission that visited Thrace in August to evaluate the vaccination campaign.

The meeting endorsed the recommendations of the mission and recommended that in future, vaccination campaigns in Turkey should be shortened, be carried out in a period of time of less than 2 months and have precise starting and finishing dates.

Concerning the utilisation of leftover vaccine at the end of the vaccination campaign,

the meeting recommended that this vaccine should be kept for emergency use in Thrace or in other strategic areas in case of type A outbreaks. All unused vaccine that subsequently reaches 6 months before its expiry date (year 2000), should then be used for preventive vaccination.

The preliminary results of the sero-monitoring of vaccination in Thrace carried out by the Sap Institute were presented. They used LPB Elisa with A Mahamatli antigen and considered an antibody titre of 96 as the threshold for positivity (protection). The results indicate that large and small ruminants had 49.76% and 18.63% prevalence of antibody against A type in the pre-vaccination period and 94.74 % and 67.22 % at 28 days post vaccination.

The following points were raised during the discussion on serosurvey:

- despite using A/Mahamatli as antigen, the % of seroconversion is high and it indicates:
  (1) that the vaccine has been effective in raising antibodies
  (2) the utilisation of an heterologous antigen does not seem to affect the sensitivity of the LPB ELISA. (However this should be investigated further).
- as was foreseen at the time the serosurvey was prepared by the Turkish authorities, the results do not enable the vaccination coverage in Thrace to be estimated. This was due to the design of the serosurvey. This is regrettable as one major objective of the serosurvey was to estimate the coverage in Thrace.
- the possibility that high positive titres (especially those above 256) may be due to infection instead of vaccination also cannot be excluded. Therefore, it is strongly suggested that sera with a titre above 96 should be re-tested for antibodies to Non-Structural proteins.

The meeting supported Sap's proposal, that the ELISA test for the detection of antibodies to non-structural proteins should be developed at the Sap Institute, with the scientific help of one EU laboratory routinely carrying out this test. It is recommended that the EU provide financial support for this transfer of technology.

GREECE

The Greek representative informed the meeting on the serological surveillance of FMD in Greece in 1998. Serological tests are carried out in Greece on three categories of animals: those living in the *"high risk"* areas (mainly Lesvos Island), imported animals, and suspect animals. The great majority of the tests carried out in the Athens Laboratory (14,712/15300 tests in 1998) are those related to sheep or goats leaving Lesvos island, which are tested individually. The tests on imported animals are random spot checks and are performed at the discretion of the inspecting veterinarian at the BIP (533 tests in 1998). As a rule, inconclusive serology results lead to re-sampling and evaluation of the new results in conjunction with previous results and with the clinical and epidemiological pictures. No positive was detected after the re-testing of 514 animals in 1998.

Dr Panagiotatos then reported on the workshop on Laboratory aspects of FMD held in Athens from 2 to 4 September 1998. The workshop's participants included two experts from each of the three countries and international experts. An anonymous appraisal carried out at the end of the workshop, indicated a high level of satisfaction that the objectives of the workshop were

fulfilled. The participants were in favour of:

1) continuation of the workshops over the next few years

2) their extension to other diseases and to other countries

The Tripartite meeting endorsed the proposals from the participants and recommended that:
1) follow-up workshops or technical meetings should be organised at the initiative of the three countries to complement and back up the tripartite group meeting.
2) other diseases of interest for the region like Sheep pox, PPR, Blue Tongue should be included in the agenda of these meetings/workshops.
3) in respect of FMD, the technical collaboration between the three laboratories which started in 1998 with this first workshop should be continued and extended to ring testing.
4) that other countries, in addition to the three core countries, could possibly be invited to participate in the workshops should be left to the discretion of the organising country.

Under item 5, Dr Panagiotatos presented the protocol concerning the exchange of live animals between Greece and Bulgaria concluded under the Joint Greek-Bulgarian Border Committee. The main advantages of this protocol are that:
1) it establishes precise rules for returning animals which can accidentally cross the border
2) it formalises the co-operation between the army/police and Veterinary Services on both sides of the border.

This protocol can be used as a model for other bilateral protocols between countries on the same subject.

BULGARIA

Dr Ivanov presented a comprehensive report on the current situation and on the measures taken to prevent the entry of FMD in Bulgaria. Bulgaria has experienced three isolated outbreaks of FMD during the last seven years. All involving type O1 virus and all were situated in the South Eastern border areas of Bulgaria.
Systematic epizootic surveillance is routinely practised combining clinical examination and serological monitoring, especially in the areas bordering Greece and Turkey.

Dr Ivanov explained that two security zones have been defined in the border area:

- one 2 km zone along the international border. Five villages are located inside this Zone and special attention is given to the surveillance of the FMD susceptible animals in these villages. All animals are ear marked and are subjected to regular inspection; they are not authorised to be moved outside the zone except for going to one specified abattoir under strict surveillance of the Veterinary Service.
- a 10 km zone, including 17 districts in the six provinces bordering Greece and Turkey. Here animals are also identified and subjected to clinical examinations and regular sero-testing on a random basis.

Referring to a recent DG XXIV EC mission to Bulgaria that recommended banning all imports from Bulgaria to the EU and the reinstallation of the fence preventing animal movements on the southern border of Bulgaria - as was present during the previous regime - the meeting discussed

the feasibility and effectiveness of this fence.
The meeting agreed that:

1) There was no example of other places in Europe where such fencing systems have been established to prevent the entry of animal disease. The only examples of where this fencing is used is in the southern regions of Africa to physically separate wild life and domestic susceptible animals.

2) the re-building of the fence will have important impacts on the social life of the farming communities and on local trade and these aspects should also be considered.

3) the alternative methods as proposed in the discussion paper by Dr Westergaard should be given high priority by Bulgaria.

Serosurveillance is one of the major tools for ensuring that there is no virus circulating in the region. Dr Ivanov reported that 18,000 sera have been tested for FMD antibodies in 1998 and that all the sera were negative.

The meeting agreed on the high importance of the sero survey and Bulgaria was requested to provide additional details on the survey's results. Bulgaria should refer to the reports of other sero surveys, like the one carried out by the EC in the three Balkan countries after the 1996 FMD episode. A copy of this report was circulated to the participants.

SITUATION OF SHEEP POX IN THE REGION

This item was included in the agenda at the request of Greece, on the basis of the increasing importance of this disease in the region.

Greece presented a comprehensive document on the situation of the disease in 1996, 1997 and 1998. In 1996, 119 outbreaks involving 6 Prefectures were reported. In 1997, 58 outbreaks occurred in the Evros Prefecture. In the early months of 1998, after the disease had been eradicated in Evros, a clinical, epidemiological and serological surveillance using AGID and VN tests to detect possibly infected animals has been carried out in infected villages. This produced negative results leading to a lifting of the restriction measures.
The disease made a re-occurrence in July 1998 in Evros Province, where 4 outbreaks have occurred so-far. Dr Panagiotatos stressed that Sheep Pox is a regional problem. Despite the efforts of Greece, the disease has been consistently re-occurring for the last 4 years, therefore he proposed that regional co-operation be strengthened to fight the disease.
The representative of Greece also explained that they maintain the capability to diagnose a wide range of exotic diseases at high costs. They would like the EC to pay more attention to exotic diseases and provide more support for surveillance and prevention in the region.

Bulgaria has not had any recent outbreak, but they support the regional approach proposed by Greece. Dr Ivanov also recalled that eradication of Sheep Pox is difficult due to the long incubation periods and the difficulties in tracing back the disease.

Turkey reported that as Sheep Pox was not included in the provisional agenda of the meeting, therefore they were not in a position to provide detailed information on the situation of the disease in their country. They agreed on the regional aspects of the disease. The disease is endemic in Anatolia. In 1998, one outbreak occurred in Manisa province in the WBZ, no outbreak was reported in Thrace. Control of the disease in Turkey is by vaccination. Vaccine is

produced in the Pendik Institute and also by Vetal. When an outbreak is reported, the flocks concerned and those around them are then vaccinated and they are re-vaccinated the following three years. Vaccination is also carried out at the request of farmers.

The meeting recommended that:

(1) Turkey provide a complete report on the situation of Sheep Pox and on their control policy at the next tripartite meeting.
(2) List A diseases should be immediately reported to neighbouring countries as required by the OIE code.
(3) The national policy for the control of list A diseases - including vaccination - should be organised by the Veterinary Service and that vaccination should be carried out by official Veterinarians only.

Recommendations 2) and 3) apply mainly to Sheep Pox, Blue Tongue and to Peste des Petits Ruminants

Appendix 4

Foot-and-Mouth Disease Situation in Turkey

1. Introduction

Foot and mouth disease remains an important disease world-wide. This disease is endemic in Anatolia (types O_1 and A_{22}). So that FMD is one of the most important disease causing significant economical loses in Turkey. Vaccination, Quarantine and Control of animal movements are being applied as control measures. The legal regulations have been prepared for the application of the stamping out policy in the planned regions.

According to the Turkish Law 3285 Article 108, the scheduled disease has to be immediately notified to the veterinary authorities who undertake respectively to supervise the necessary measures, such as outbreak investigation, taking of specimen for typing at the FMD Institute (ap Enstitüsü in Ankara), ordering movement restrictions to prevent further spread, quarantine, taken cordon, disinfection, compensation (destruction and stamping out), ring vaccination, immediately informing neighbouring districts and provinces etc.

According to the General Directorate of Protection and Control (GDPC) statistics Turkey has about **11.153.148** large ruminants and about **39.378.906** small ruminants. Based on certain regions statistics is as follows;

Table 1: Ruminant population in Turkey in 1998 (*)

	Large Ruminants	Small Ruminants
Thrace	468.160	953.179
Western Buffer Zone	2.062.754	5.608.381
Residual Anatolia	8.622.234	32.817.346
TOTAL	**11.153.148**	**39.378.906**

(*) GDPC Statistic in 1998

2. Disease Status

Turkey is divided into 3 main regions for the control of FMD; Thrace, WBZ of Anatolia and the other provinces of Anatolia.

In Turkey, 68 outbreaks of foot and mouth disease (virus types O and A) were reported between January and October 1998.

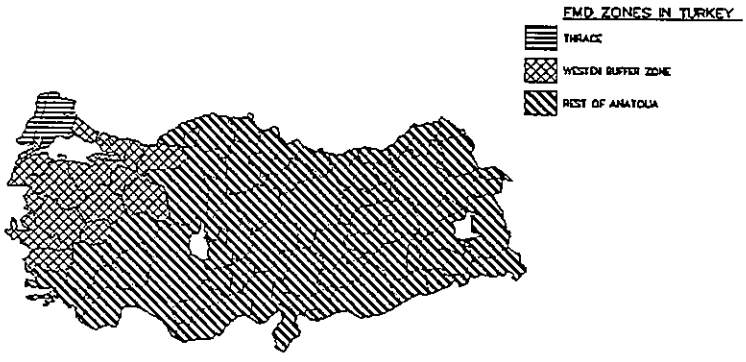


Table 2: Monthly Distribution of FMD Outbreaks in Turkey in 1998

Year	Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1998	O1	4	4	4	2	2	5	6	2	3	2			**34**
	A22	2	1	2	3	1	2	2	-	-	-			**13**
	Not Typed	-	1	-	3	6	7	3	1	-	-			**21**
	Total	6	6	6	8	9	14	11	3	3	2			**68**

A new variant of type A FMD virus emerged in Turkey early in 1998. Vesicular epithelia collected from infected area were sent to WRL Pirbright for molecular characterisation. The results confirmed the suspicious situation that the entire type outbreak was due to the new variant which circulating in Iran since 1996.

In total, 13 outbreaks due to new type A strain (A/ ran 96) have been occurred during the first 10 months of 1998. They occurred in 5 provinces of Eastern and Central Anatolia and 4 provinces of Western Anatolia. During the last 3 months no type A outbreak is occurred. This is indicating that the virus did not continue to spread to the west, as it was initially feared. The O type FMD outbreaks are still dominant to A type. All of the infected animals were the cattle.

In some outbreaks on the first samples, which were sent to laboratory was not identified. After the disease reporting to OIE adequate samples were received from the same origin and identified by the laboratory. Most of them were Type O.

Totally **6 829 203** large ruminants and **6 311 363** small ruminants were vaccinated in Turkey.

The animal markets and stock exchange places that belong to the MARA and municipalities are under the control of State Veterinary Offices. New legislation has been published on 26.8.1988 with the number 1998/19 in Official Gazette about the certification of the livestock markets and inspection and control of those plants.

The transportation of the animals within the country requires a health certificate issued by the State Veterinary Officers after the inspection of the animals. If the province of the origin is under quarantine, no animals are allowed to leave the province.

According to the Article 108, when FMD outbreaks occur, the Animal Health Control Commission should meet as soon as possible and measures should be taken based on the fourth part of chapter 1 of the Law 3285 and Guide.

Apart from recording the outbreak situation and procedure on district and province level, the Animal Combating Department at the GDPC is receiving these information and compliance with an annual report.

There is a strong movement of beef cattle from the east of Turkey to the consumer centers in the western and central part of Anatolia. A number of control stations (Giresun-Center, Tokat-Re adiye, Sivas-Center, Malatya-Karakavak, Kahramanmara -Pazarc k and Gaziantep-Nizip) have been set up at a north-west line stretching from Giresun to Gaziantep in order to check livestock transports coming from the east to the Western Buffer Zone.

Animals to be transported have to be vaccinated two weeks prior to their dispatch, and health and vaccination certificate has to be accompanying the animals.

2.1 The Thrace Region

This region is composed of the provinces in the Europe (Edirne, K rklareli, Tekirda , European parts of Çanakkale and stanbul) separated with Bosphorus from Anatolia. It has about 468.160 **large ruminants as well as about** 953.179 **small ruminants.**

Last two FMD outbreaks occurred in Kad köy village of Ke an district and Ortakç village of Lalapa a district of Edirne Province on 27 May 1996 and 7 June 1996 respectively.

Strict measures have been taken and disease surveillance has been carried out within the Thrace region continuously. No FMD outbreak was occurred in 1997 and in 1988. All cattle were vaccinated against types O_1 and A_{22} three times and sheep and goats once in this region in 1997 in accordance with the established programme.

In 1998 first round vaccination has already been completed using bivalent vaccine (A_{22}+O_1) in Thrace as in the other parts of Turkey. 268.423 (59 %) large ruminants and 404.683 (47.5 %) small ruminants were vaccinated in this period. Second round vaccination is still continue.

Vaccination campaign of the all ruminants in the Thrace region using a monovalent vaccine against the new type A ran/96 has been implemented in August 1998. Totally **311.472** large ruminants and **636.550** small ruminants were vaccinated.

2.2 The Western Buffer Zone of Anatolia (WBZ)

This area includes 15 provinces. Asiatic part of Istanbul, Asiatic part of Çanakkale, Kocaeli, Sakarya, Bal kesir, Bilecik, Bolu, Bursa, Eski ehir, zmir, Kütahya, Manisa, Ayd n, U ak and Yalova. There are about **2.062.754** large ruminants as well as **5.608.381** small ruminants.

In total, 17 outbreaks of foot and mouth disease were occurred between January to October 1998.

All large ruminants should be vaccinated twice a year and small ruminants once a year in this region according to the programme. In the spring vaccination in 1998, 622.578 (33%) large ruminants and 393.264 (7%) small ruminants were vaccinated.

If they have adequate certificates livestock transportation from eastern part of Anatolia to WBZ is possible. Whereas, the animals should be kept at least 3 months in this region before passing to the Thrace.

Outbreaks in this area are also dealt with, in accordance to the law no.3285, including temporary quarantine, transport restriction, ring vaccination, disinfection, etc.

2.3 The other provinces of Anatolia

There are 62 provinces and about **8.622.234** large ruminants as well as about **32.817.346** small ruminants in the remaining part of Anatolia. In accordance with vaccine availability, vaccination was carried out in areas along the main east-west livestock transportation routs, in certain project areas, and in the case of private request of the farmers, 6.716.423 (66%) large ruminants and 3.644.956 (8%) small ruminants were vaccinated in 1997.

In 1998, from January to October 51 outbreaks were occurred in this region. During the spring vaccination campaign of 1998 1.584.163 (16%) for large ruminants and 556.017 (1%) small ruminants were vaccinated.

Ring vaccination, strategic vaccination and quarantine measures are being applied in that area. Due to illegal movements from neighbouring countries there is always the risk of occurrence.

The most complicated part for application of the combating programmes against animal diseases. Animal movement rate is rather high both inland and from the neighbouring countries illegally. In principle large ruminants are vaccinated twice and small ruminants once a year.

3. Perspective for Vaccine Production and Control in Turkey

ap Enstitüsü (FMD Institute) located in Ankara is the only Government laboratory for vaccine production and diagnosis of FMD in Turkey. It also carries out the epidemiological studies in the country. The annual production capacity is 30 million bivalent cattle doses generally.

The authorities have given permission to produce FMD vaccines to a private company, VETAL in Ad yaman. The Ministry of Agriculture and Rural Affairs (MARA) will continue to support the production of vaccine by private companies. There are legal regulations for the imported vaccines.

The Ministry has already started to establish an independent vaccine control laboratory at Bornova, zmir. According to yearly financial allocation it is ongoing.

Vaccine production in SAP for 1998 is 11 million doses A22 and 10 million O1, at present the production is stopped due to reconstruction, but enough vaccine is in store for the autumn campaign.

The institute has two field strains of the new type A/Iran, namely A/Ankara and A/Aydin for vaccine production. The programme for adaptation has started in June, it consisted in one passage on cattle and passages in cell culture. Both ELISA and infectious titres are high (10:8 and 10:3.2 respectively). The adaptation of the new seed strain progresses well and new vaccine will be available at the end of this year.

The institute intent to carry out a cross protection test A96 Iran versus A22 to decide whether they can abandon A Mahmatl in the vaccine or they have to produce a trivalent vaccine (O_1 Manisa+A_{22} Mahmatl +A/Iran-96).

MARA will support the production of new vaccine also by private company, as the capacity of ap Institute is not sufficient. Private Company received virus strain from Pirbright and started to work on it.

The testing of the vaccines produced in Turkey planned in the EC decision should be applied as soon as possible. The bottling and sampling of the vaccine shall be done under supervision of an expert of the testing laboratory. A commission, under the supervision of an expert of the testing laboratory one representative from GDPC and one representative from FMD Institute, shall take samples from SAP Institute in Ankara and VETAL Laboratory in Ad yaman. If it is possible we wish to control more than one batch.

4. Vaccination Campaign in Thrace against the New Type A Variant in 1998

After the occurrence of new type A variant in Turkey, Pirbright FMD World Reference Laboratory indicated that type A 22 vaccine offered no cross protection against this new variant. The commission decided to finance vaccination of large and small ruminants with the new vaccine in Thrace.

The vaccine arrived in Istanbul airport at 16 July 1998 and was collected by the Pendik Veterinary Control and Research Institute the next day (61 boxes of 147 X 100 doses and one box of 33 X 100 doses). It was stored in the cold room of the Institute. Pendik Institute distributed the vaccine to the Provinces according to the instructions of the Ministry.

Training of the field veterinarian has been carried out in Tekirda , Istanbul and Canakkale provinces with the support of one expert from GDPC and one expert from Sap between 27 and 29 July 1998.

Due to high temperatures in the region the vaccination campaign was started in the first week of August instead of the third week of July as initially planned.

The vaccination campaign is organised at the District level under the co-ordination of the Provincial Directors of the Veterinary Services.

After the joint EC/EUFMD mission evaluation, the mission submitted recommendations for the vaccination campaign to the MARA. The necessary instructions were circulated urgently to the Provincial Directorates by GDPC for implementation in the field with the objective being to rectify the main deficiencies observed at field level.

We did not observe important adverse reactions except some local swelling. Approximately 10 % of losses of vaccine were observed during the vaccination campaign.

Totally, **311.472 (67 %)** large ruminants and **636.550 (67 %)** small ruminants were vaccinated during the campaign.

The campaign has been finished. Updated vaccination figures are given below tables:

Table 3. Vaccination campaign against the new types A variant in Thrace in 1998

Province	Animal Population		Vaccinated Animals		Vaccination Coverage Rate (%)		
	large ruminants	small ruminants	large ruminants	small ruminants	large ruminants	small ruminants	Doses stocked
Edirne	164.543	306.829	98.365	159 297	60	52	6.900
Kirklareli	106.754	267.613	67.820	233.033	64	87	4.400
Tekirdag	117.684	191.820	87.196	119.790	74	62	20.300
Canakkale	11.501	115.000	8.583	72.032	75	63	1.000
Istanbul	67.678	71.917	49.508	52.398	73	73	20.500
Total	**468.160**	**953.179**	**311.472**	**636.550**	**67**	**67**	**53.100**

FMD sero-surveillance in Thrace

The proposals of sampling plan prepared by Turkey were sent to EUFMD for their comment. During the limited time we did not receive any comment and we have started to apply our original plan. After that we have received the proposals for modification of the sero-survey. It was too late as the first collection of samples had already been completed. It was not possible to modify the survey at that stage.

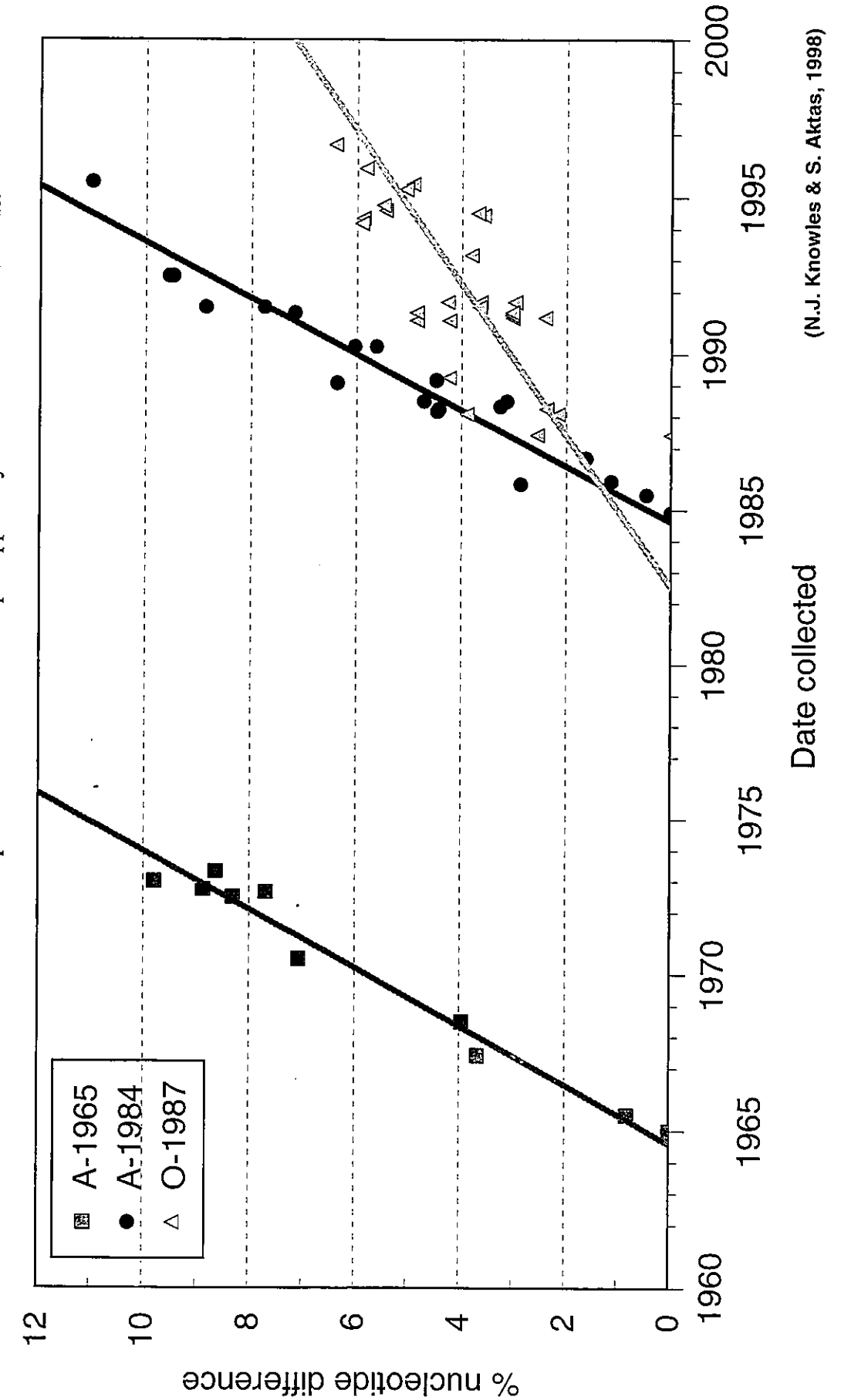
All villages accepted as a herd. We have selected randomly 35 herds (villages). It is planned to collect randomly 5 samples for small ruminants and 5 samples for large ruminants each selected herd. The question we wish to answer is the prevalence of antibodies before, 28 days and 2-3 month after vaccination in selected ruminants.

During the mission visits, representatives of the SAP Institute explained that the capacity of the laboratory (2000 to 2500 samples tested by ELISA per year) is the limiting factor. If more testing is requested the laboratory request the supply of additional reagents free of charge. A suggestion was made by the EUFMD experts that sera from Thrace with LPB ELISA titres > 100 should be tested for antibodies to non-structural proteins in one EU laboratory. The representative of the SAP Institute proposed that, as they will need competence in this test in the future, this testing should be carried out in the SAP Institute with the help of an EU expert present at the institute.

5. Major Constraints & Problems

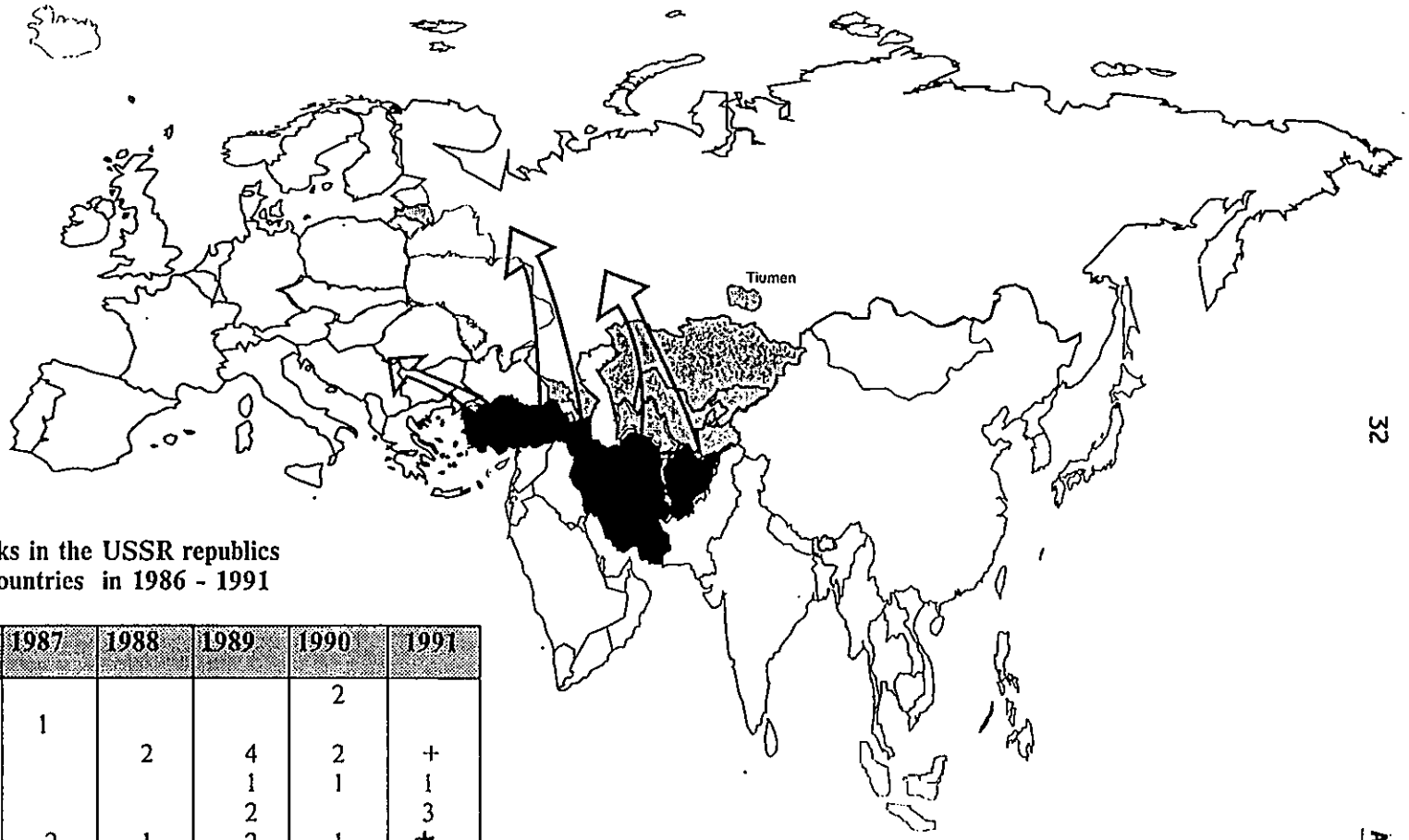
- The animal health situation and other problems in some neighbouring countries.
- The difficulties of animal movement control.
- Restriction of resources available to the Animal Health Services.
- The main animal production areas in Turkey are different from the main areas of consumption.
- Recent initiatives for co-operation with donor agencies.
- Application for a FMD project (EU)

Evolution of type 0 and A strains in Turkey from 1965 to 1998 **Appendix 5**



Linear regression analysis of percentage nucleotide difference (partial VP1) versus time of isolation for three foot-and-mouth disease virus data-sets. Squares: type A viruses isolated between 1965 and 1973 compared to A_{22}/Mahmatli/TUR/65; circles: type A viruses isolated between 1984 and 1995 compared to A/TUR/5/85 (1984); triangles: type O viruses isolated between 1987 and 1996 compared to O/TUR/2/87. Graph supplied by N.J. Knowles and S. Aktas.

FMD epidemic situation in the USSR and neighbouring countries in 1986-1991.

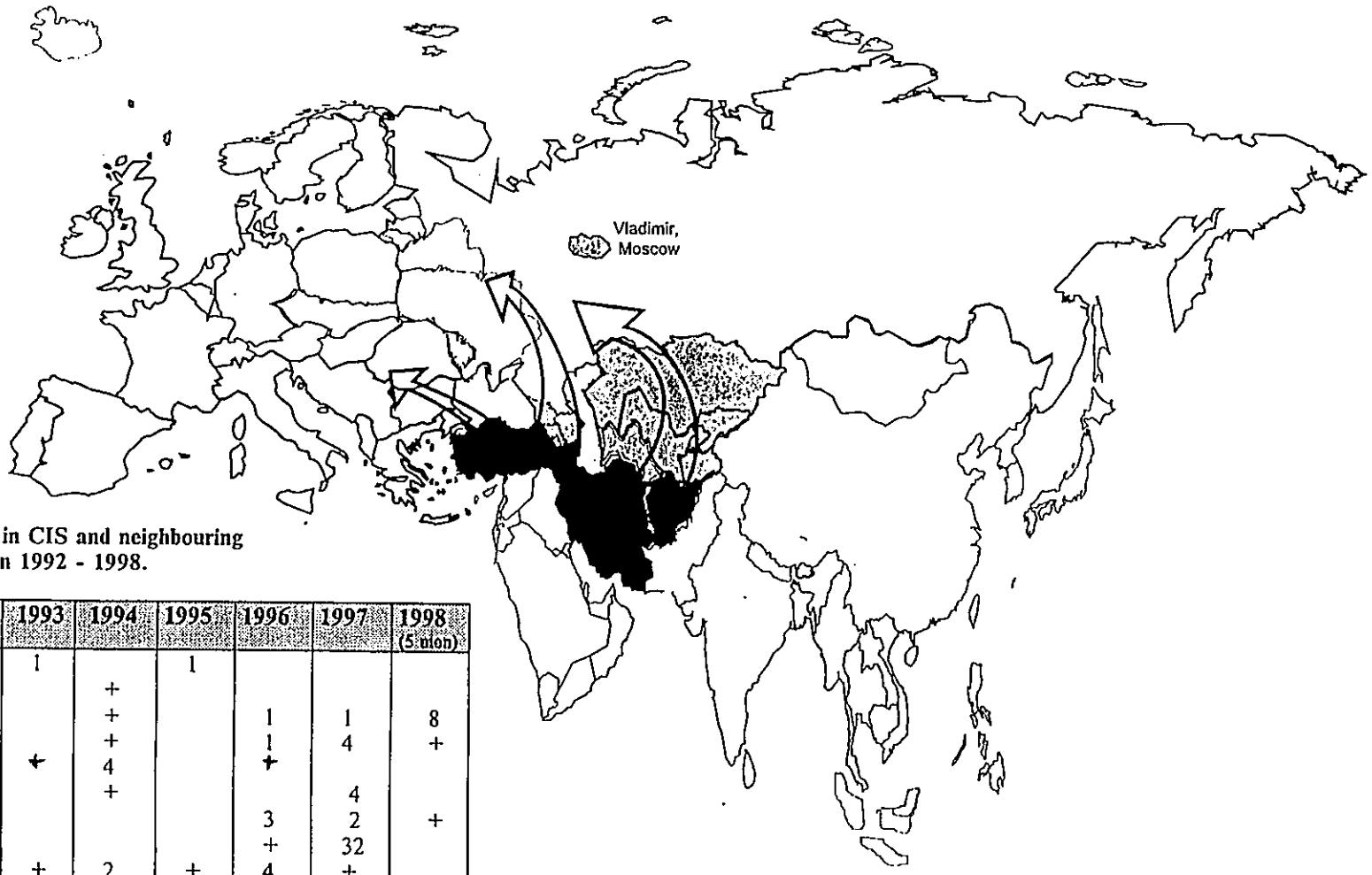


Number of outbreaks in the USSR republics and neighbouring countries in 1986 - 1991

№	Years, republics, states	1986	1987	1988	1989	1990	1991
1	Russia					2	
2	Latvia		1				
3	Uzbekistan	1		2	4	2	+
4	Kazakhstan				1	1	1
5	Kyrghyzstan				2		3
6	Tadzhikistan	1	2	1	2	1	+
7	Turkmenistan			1	2		
8	Georgia	1					1
9	Azerbaijan	1					1
Total number in the USSR		4	3	4	11	6	6
1	Turkey	113	378	409	147	542	818
2	Iran	150	198	146	315	195	216
3	Afghanistan	+	+	+	+	+	+

n.i. = no information

FMD epidemic situation in CIS and neighbouring countries in 1992-1998



Number of outbreaks in CIS and neighbouring countries in 1992 - 1998.

No	Years, republics, states	1992	1993	1994	1995	1996	1997	1998 (5 mon)
1	Russia		1		1			
2	Uzbekistan			+				
3	Kazakhstan			+		1	1	8
4	Kyrghyzstan			+		1	4	+
5	Tadzhikistan	+	+	4		+		
6	Turkmenistan			+			4	
7	Armenia					3	2	+
8	Georgia	1				+	32	
9	Azerbaijan		+	2	+	4	+	
Total number in CIS countries		1	1	6	1	9	43	8
1	Turkey	66	221	158	108	133	54	35
2	Iran	283	421	221	270	651	345	60
3	Afghanistan	+	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.

n.i. - no information

Appendix 7

MEETING OF THE OIE/FAO/EU ON A PLAN FOR THE SURVEILLANCE AND CONTROL OF FOOT AND MOUTH DISEASE IN THE COMMONWEALTH OF INDEPENDENT STATES

All-Russian Research Institute for Animal Health, Vladimir (Russia)
24 November 1998

Decision of the Representatives of the Commonwealth of Independent States
Vladimir (Russia), 24 November 1998

In accordance with Recommendation No. 1 of the Conference of the OIE Regional Commission for Europe, adopted on 25 September 1998 in Prague (Czech Republic) on 24 November 1998, a meeting was held in Vladimir (Russia) between the representatives of the OIE, FAO and EU with the participation of the Heads of the Veterinary Services of Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Russia, Turkmenistan, Ukraine and Uzbekistan.

The participants at the conference noted that, thanks to the regular vaccination of animals against foot and mouth disease (FMD) over a period of many years in the countries of Central Asia, Transcaucasia and the Russian territory of Northern Caucasia, and despite the continuous presence of the infection in neighbouring countries (Turkey, Iran, Afghanistan), foot and mouth disease has remained sporadic. However, in recent years the animal health situation for foot and mouth disease in the aforementioned regions has drastically worsened lately. The reasons for this deterioration are as follows:

- in the unstable FMD infected zone composed of Iran, Turkey and Afghanistan, a weakening of border control with respect to trade in animals and products of animal origin;
- existence in certain regions of military conflicts and massive migration of human and animal populations;
- an increase in tourism and trade (see table);
- reduction in the quantity of animal vaccines due to the extremely difficult economic situation of the countries.

Taking into account the danger of a massive incursion of foot and mouth disease into the CIS countries, as well as the real risk of introduction of the disease into the countries of Eastern and Western Europe, the participants at the conference decided the following:

1. to support the project to maintain and extend the buffer zone against foot and mouth disease in the CIS countries. The cost of the prophylactic vaccination programme would amount to 15 million USD, of which 50% is to be financed by international organisations.
2. to attribute the rôle of coordinating centre for the execution of the programme to the All-Russian Research Institute for Animal Health (ARRIAH, Vladimir)
3. on the basis of the instructions of the Institute, to ensure production of the necessary quantities of vaccines and establish an FMD vaccine bank.

The CIS countries agree to commit themselves to the following series of measures:

- conduct rigorous identification and recording of all animals susceptible to FMD;
- ensure the control of animal movements and the establishment of veterinary certificates;
- rapidly provide international organisations with detailed information on the occurrence of cases of FMD;
- take emergency measures to eradicate newly appearing outbreaks of the disease;
- accord the coordinating centre (ARRIAH) constant control, and offer international organisations the right to control as well;
- ensure the necessary vaccination and booster vaccination of susceptible animals;
- conduct constant surveillance of the immune status of the vaccinated animals;
- at necessary intervals and using established reporting procedures inform international organisations on the measures put into place.

Country representatives:

Armenia	Georgia	Russia	Uzbekistan
Azerbaijan	Kazakhstan	Turkmenistan	
Belarus	Kyrgyzstan	Ukraine	

[signatures]

Appendix 8

Conclusions & Recommendations of the Session of the Research Group of the EUFMD held at Aldershot, UK, 14-18 September 1998

Item 2:- Species adaptation of different strains of FMDV: field and experimental findings.
- New variants of FMD virus.

1. Rapid recognition of new variants, with more attention on the 'index case', and an effective response is important for control. Submission of material to the world reference laboratory is therefore essential.

2. Molecular epidemiological studies have identified the emergence of several new strains of FMDV type A in recent years, each with a defined geographical distribution.

3. Further research is required into how new variants of FMDV can best be controlled by vaccination. The relative merits of adapting new variants to derive new vaccine strains, altering the antigenic payload, and the use of more potent vaccines with novel adjuvants, should all be evaluated.

4. FMDV strain A Iran 96 causes disease predominantly in cattle. Experimental data supports the observation from the field that FMDV isolates from Greece in 1996 are particularly virulent for sheep. Subclinical infection with FMDV can occur in pigs.
Research is required to identify the host, viral and transmission factors that are responsible for adaptation of FMDV to a particular species.
Adaptation to a particular species can result in either a reduced ability to infect or cause disease in another species or both of these.
Changes in control strategy due to identification of a species adapted variant are rarely indicated.

Item 3:- Developments in diagnostic techniques.
- Persistence of FMD virus in ruminants.

1. RT-PCR is a useful adjunct to conventional diagnostic techniques, but should be used in combination with other assays, and/or clinical signs of infection.

The results presented provide further evidence for the important role of subclinically infected sheep in the epidemiology of FMD. Whenever possible, new diagnostic methods should also be validated on small ruminants. The reduction of virus replication and excretion as well as the number of sub-clinically infected sheep was reported after the use of emergency vaccine.

2. In order to get proper insight into the antigenic profile of new field isolates, antigenic relationships using either monoclonal or polyclonal antibodies should be studied.

3. There is a need to improve diagnostic methods in terms of sensitivity, speed and simplicity and to investigate the diagnostic potential of newly developed physicochemical assays such as electrochemiluminescence, surface plasmon resonance, atomic force microscopy and biosensors.

4. Collaboration on the development and validation of diagnostic methods should be continued and colleagues from non-EU member states should be invited to participate.

Item 4: Standardisation of FMD Diagnosis (Phase XV).

1. Primary reference sera for FMDV types O1 (Middle East), A22 (Middle East), and C1 (Europe) have been selected. The WRL for FMD should make available the selected reference sera - negative/weak positive/cut-off sera - to National FMD laboratories. Laboratories are encouraged to evaluate these reference sera as controls in use in routine testing and report results as part of Phase XVI.

2. National Laboratories should use these sera as primary reference. Laboratories should create their own secondary and tertiary standards using strong positive sera. Advice should be given by the WRL as to how laboratories should generate their own standards.

3. Laboratories wishing to participate in the FAO Phase XVI study should make contact with the Secretary of the EUFMD Commission or the WRL for FMD.

Item 5: Serology (NSP), serosurveillance, persistence of antibody induced by vaccination.

1. Detection of antibody to NS proteins can be used to identify infected animals, with any of the seven serotypes, whether vaccinated or not and regardless of the clinical outcome.

2. Field validation in the Balkans showed that measurement of antibody to NS proteins was useful at detecting unrecognised, subclinical spread of infection either geographically or between species, even 18-20 months after an outbreak.

Measurement of antibody to NS proteins should form part of any serological survey intended to detect past or present infection of animals vaccinated against FMD.

The assays should be used on a herd or group basis. Investigations in the field are necessary to determine the sampling rate.
Results of individual animals should be interpreted with care as not all vaccinated, infected animals seroconvert to NSP.
The tests cannot be used to determine the carrier status.

3. Measurement of antibody to several NS proteins at the same time can give a more reliable indication of the infection status of an animal.

4. No single ELISA format has yet been shown to be definitively superior to all others. The development of fully validated tests in a form suitable for supply to laboratories involved in diagnosis and control of FMD should be a priority.

Item 6a: Quality assurance.

The meeting was informed that the OIE agreed to create an ad hoc group to study the proposals of the Vienna meeting. The chairman was asked to follow the progress of the ad hoc group.

National laboratories are encouraged to proceed with the implementation of a Quality Assurance Programme. They are advised to approach their National Accreditation Bodies.

In the future the FAO Collaborative Studies should comply with OIE Guidelines for Proficiency Testing.

The investment required for QA/QC activities at laboratories is high. A study should be conducted to compare the investments made by laboratories and those of private industry. In this way laboratories can justify adjustments to their future budgets.

Item 6b: inactivation of FMD virus.

Results were presented on the failure of dry heat to inactivate air-dried FMD virus. It was concluded that this method which is in the present FAO security standards for FMD laboratories in Europe should be changed. FMD laboratories and Institutes are requested to review their current inactivation procedures by taking this information into account.

Further research combining different treatments and risk analysis should be carried out.

Item 7: Vaccine and proposals for amendments of the FMD Monograph of the European Pharmacopoeia.

Based on a proposal from the Research Group, the Executive Committee had decided to invite representatives of European vaccine producers to present their view for amendment of the FMD vaccine Monograph of the European Pharmacopoeia. It is generally accepted that the EP Monographs are designed to be appropriate to the needs of Regulatory Authorities, persons involved in the control of product quality as well as manufacturers of starting materials and medicinal products.

In particular two areas of concern were identified:

The replacement of the in-vivo safety test by more sensitive and statistically valid in-vitro tests. Results of safety testing of FMD vaccine batches were presented. Out of 253

batches only one failed the in-vivo test whereas 17 failed to pass the in-vitro safety test, clearly indicating that the in-vivo test does not really contribute to safety control of the vaccine.

The need to evaluate the PD50 and alternative methods for potency testing in other target species with a view to future inclusion in the European Pharmacopoeia.

The Chairman of the Research Group suggested to establish an ad hoc Working Group to be appointed by the Executive Committee. Dr Amadori, Dr Barteling and Dr Haas could be members of the Group together with representatives of producers, vaccine banks and of the EC Scientific Committee. Other experts of control authorities, EMEA (European Agency for the Evaluation of Medicinal Products) and specialists in statistics and quality assurance could be invited to participate in certain meetings in accordance with the Agenda.

Item 8: Closed Session.

Vaccination against A/Iran and type A vaccines.

Considering the field information already available on this subject and the possibility to get sera from vaccine producers and from Turkey for additional serological testing, the Group agreed that there was no need for organising a trial on large animals to verify the protection of the existing vaccines against the new strain.

The Group is of the opinion that there is a need to make a reassessment of the appropriate A vaccine to be used in Turkey.

The question of the appropriate antigen and sera to be used for the detection of the new type A virus and antibodies in national laboratories was raised and it was agreed that sera against the new A/Iran strain should be provided to laboratories.

Development of kits for the non-structural protein

As a start a double blind collaborative study should be organised under the next phase of the EU concerted action coordinated by the national laboratory of Germany.

Serosurveillance in Bulgaria

The Group agreed that the serosurveillance in small ruminants should be continued on the border with Turkey.
The collection of samples reinforces the clinical surveillance and the testing of sera maintains the activity in the national laboratory.
Testing against the 3D non-structural protein has been suggested.
Bulgaria shall provide a protocol and an annual report to EUFMD when the Commission supports the cost of reagents.

Provision of vaccine strains by the WRL and focus on index case

The Group agreed that the provision of viral strains adapted for vaccine production is beyond the responsibility of the WRL.
The Group agreed on the need to define the index case and that procedures for early detection and investigation should be foreseen in the Contingency Plans.

Other items

The Group was informed that Professor Schüller had taken up new duties in Brussels and therefore had resigned as a member.
The Group expressed regret that one of the members was unable to attend the two successive Sessions in 1997 and 1998 and suggested that this could be avoided for the next Group to be designated in 1999.
The participant from France extended an informal invitation to the Group to hold their next Session at Maisons Alfort in France in 1999, and the participant from Bulgaria proposed to organise the next open Session in Sofia in 2000.

Item 9: Any other business.

Dr Füssel (EU) described the function and recommendations of the five working groups established by EU to examine the EU Legislation on FMD control, which includes provision for laboratory diagnostics, vaccine, outbreak control measures, third countries, Contingency Plans.

Professor Ahl reviewed the activity of a Vaccine Working Group of the European Commission. This group was charged to establish criteria for implementing an emergency FMD vaccination programme, prepare guidelines for the programme, and procedures for movement of animals and animal products within the vaccination zone.

Appendix 9

Financial Report: accounts 1998, budgets 1998, 1999 and 2000
TF's 904200 MTF/INT/011/MUL, 911100 MTF/INT/003/EEC, 909700 MTF/INT/004/MUL

MTF/INT/011/MUL-TF 904200
European Commission for the Control of Foot-and-Mouth Disease
Financial Report as at 31 October 1998

Statement 1

	US$	US$
Balance as at 1 January 1998		136,104
Interest received (first semester rate 4.38%)	5,269	
Contribution from member countries (As per statement 2)	329,503	334,772
Expenditure		
Commission Secretary	104,521	
Admin. Support Personnel	64,890	
Duty Travel	31,510	
Contracts	25,000	
General Operating Expenses	782	
Expendable Equipment	6,322	
Total Expenditure		(233,025)
Balance as at 31 October 1998		237,851

TRUST FUND No. 9042.00 - MTF/INT/011/MUL -
Inter-Regional - Euopean Commission for the Control of Foot-and-Mouth Disease

Status of Contributions as at 31 October 1998
(expressed in US$)

Member Governments	Outstanding 31/12/1997	Contribution due for 1998	Received up to 31/10/1998	Outstanding 31/10/1998	
ALBANIA	21.00	2,600.00	2,575.00	46.00	
AUSTRIA	0.00	7,800.00	7,800.00	0.00	
BELGIUM	0.00	13,000.00	13,000.00	0.00	
BULGARIA	11,364.99	7,800.00	0.00	19,164.99	
CYPRUS	0.00	2,600.00	2,600.00	0.00	
CROATIA	1,300.01	2,600.00	3,900.00	0.01	/1
CZECH REPUBLIC	0.00	7,800.00	7,800.00	0.00	
DENMARK	0.00	13,000.00	26,000.00	(13,000.00)	/2
FINLAND	0.00	7,800.00	7,800.00	0.00	
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	0.00	2,600.00	2,600.00	0.00	
IRELAND	0.00	7,800.00	7,780.00	20.00	
ISRAEL	0.00	2,600.00	2,600.00	0.00	
ITALY	0.00	26,000.00	25,362.72	637.28	
LITHUANIA	0.00	2,600.00	2,600.00	0.00	
LUXEMBOURG	0.00	2,600.00	2,600.00	0.00	
MACEDONIA, Fed.Y.Rep. of	1,300.01	2,600.00	3,885.01	15.00	
MALTA	0.00	2,600.00	2,600.00	0.00	
NETHERLANDS	0.00	13,000.00	13,000.00	0.00	
NORWAY	0.00	7,800.00	15,600.00	(7,800.00)	/2
POLAND	0.00	13,000.00	13,000.00	0.00	
PORTUGAL	3,900.09	7,800.00	7,800.00	3,900.09	
ROMANIA	0.00	13,000.00	13,000.00	0.00	
SLOVENIA	(1,950.01)	2,600.00	0.00	649.99	
SPAIN	0.00	13,000.00	13,000.00	0.00	
SWEDEN	0.00	13,000.00	13,000.00	0.00	
SWITZERLAND	0.00	13,000.00	13,000.40	(0.40)	/1
TURKEY	0.00	13,000.00	13,000.00	0.00	
UNITED KINGDOM	0.00	26,000.00	26,000.00	0.00	
YUGOSLAVIA, Fed. Rep. of	52,261.30	7,800.00	0.00	60,061.30	/3
TOTALS	68,197.39	325,000.00	329,503.13	63,694.26	

/1 o/s amounts under $10 will be written-off at year end
/2 1999 contributions paid in advance
/3 o/s amount not to be called

STATEMENT 3

Summary of Contributions Received in Arrears in 1998

Received in arrears for earlier Years	US$
CROATIA	1,300.00
MACEDONIA, Fed.Y.Rep. of	1,300.01
	2,600.01

STATEMENT 4

MTF/INT/004/MUL - TF number 909700

FOOT AND MOUTH DESEASE - EMERGENCY AID PROGRAMME

Financial Report as at 31 October 1998

	US$	US$
Balance as at 1 January 1998		63,905
Interest received (first semester rate 4.38%)		1,390
Expenditure		
Consultancy	5,097	
Support Cost 6% (on all items except expendable equipment)	306	
Total Expenditure		(5,403)
Balance as at 31 October 1998		59,892

STATEMENT 5

MTF/INT/003/EEC - TF number 911100

FOOT AND MOUTH DISEASE

Financial Report as at 31 October 1998

	US$	US$
Balance as at 1 January 1998		1,274,770
Interest received (first semester 4.38%)		27,597
Expenditure		
Consultancy	6,262	
Duty Travel	39,619	
General Operating Expenses	190	
Expendable Equipment	310,398	
Support Costs 6% (on all items except expendable equipment)	2,764	
Less: Total Expenditure		(359,233)
Balance as at 31 October 1998		943,134

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

Trust Fund 904200 MTF/INT/O11/MUL

Annual Contributions for 1998/1999/2000: US$325,000

	Budget Components	Budget for 1998 Approved by 61st Session	Budget for 1998 Approved by 62nd Session	Budget for 1999 Approved by 61st Session	Budget for 1999 Revised by 62nd Session	Proposed Budget for 2000
1101	Secretary	$ 142,943	$ 130,943 [1]	$ 152,949	$ 136,181 [2]	$ 141,628 [2]
	Administrative Assistant	$ 79,815	$ 79,815 [1]	$ 82,208	$ 83,008 [2]	$ 86,328 [2]
	Overtime	$ -	$ -	$ 1,500	$ 1,500	$ -
	Support Staff for 23rd Session	$ -	$ -	$ 15,000	$ 15,000	$ -
	Subtotal	**$ 222,758**	**$ 210,758**	**$ 251,657**	**$ 235,689**	**$ 227,956**
2000	Duty Travel					
	Secretariat and Non-Staff Travel	$ 36,000	$ 44,000	$ 35,000	$ 30,000	$ 30,000
3000	Contracts					
	Annual Contribution to WRL	$ 30,000	$ 30,000	$ 30,000	$ 35,000	$ 35,000
	Collaborative Laboratory Studies	$ 9,000	$ 9,000	$ 6,343	$ 11,200	$ 11,200
	Workshop	$ 20,000	$ 20,000	$ -	$ -	$ 15,000
4000	General Operating Expenses/Hospitality	$ 500	$ 1,500	$ 500	$ 1,500	$ 1,000
5000	Expendable Equipment	$ 6,000	$ 9,000	$ 750	$ 6,550	$ 3,750
6000	Durable Equipment	$ -	$ -	$ 750	$ 2,500	$ -
	Subtotal	**$ 101,500**	**$ 113,500**	**$ 73,343**	**$ 86,750**	**$ 95,950**
	Reserve/Unallocated Funds	$ 742	$ 742	$ -	$ 2,561	$ 1,094
	Total	**$ 325,000**	**$ 325,000**	**$ 325,000**	**$ 325,000**	**$ 325,000**

[1] Based on actual costings up to 31 October 1998 and estimates for Nov/Dec 1998

[2] Based on revised actual costings for 1998 and a projected 4% increase for 1999 to allow for inflation

Budget 1998 TF's 911100/909700 as approved by Thirty-second Session and revised by Sixty-first Session of the Executive Committee

Proposed Budget for 1999

TF911100 MTF/INT/003/EEC		
Component	Approved 1998	Proposed 1999
1151 – Consultants	US$ 50,000	US$ 50,000
2000 - Duty travel	US$ 70,000	US$ 70,000
4000 – General operating expenses	US$ 2,500	US$ 2,500
5000 – Expendable equipment (vaccine)	US$ 500,000	US$ 500,000
9100 – Support costs (6% except on vaccine)	US$ 7,350	US$ 7,350
Total	**US$ 629,850**	**US$ 629,850**
Balance (31.12.97)	**US$ 1, 274,770**	**(31.10.98)US$ 943,134**
Balance less projected expenditure	**US$ 644,920**	**US$ 313,284**

TF909700 MTF/INT/004/MUL		
Component	Approved 1998	Proposed 1999
1151 - Consultants	US$ 20,000	US$ 20,000
2000 - Duty travel	US$ 5,000	US$ 10,000
5000 - Expendable equipment (vaccine)	US$ 25,000	US$ 17,000
6000 - Non-expendable equipment	US$ 5,000	US$ 5,000
8000 - Training	US$ 5,000	US$ 5,000
9100 - Support costs (6% except on vaccine)	US$ 2,100	US$ 2,100
Total	US$ 62,100	US$ 59,100
Balance (31.12.97)	**US$ 63,905**	**(31.10.98) US$ 59,892**
Balance less projected expenditure	**US$ 1,805**	**US$ 792**

04.12.98

Appendix 10

Draft guidelines for the assessment of the risk of introduction of FMD into Europe; focusing on the threats associated with tourism and transport and on the preparation of an awareness campaign to decrease these risks.

Yves Leforban, John Ryan

The 32nd Session of the Commission, held in 1997 in Rome, asked the Secretariat of the Commission to prepare a draft of guidelines to prevent the introduction of FMDV by tourists or workers originating in FMD infected countries. These guidelines, after adoption by the Commission, should be used to prepare awareness campaigns targeted at the population concerned in member countries.

Possible places of origin of the virus

All FMD infected countries. Regions classified by order of perceived risk to Europe:
- Middle East
- CIS countries
- North Africa
- Asia
- South America
- rest of Africa

Possible sources of virus (classified by decreasing risk)

Live animals

sheep and goats are particularly dangerous as they rarely show symptoms, (wildlife may also be a source of virus, e.g. gazelles in Israel and in Kazakstan, Wild boars in Turkey)

Animal products (see the OIE Code)
- meat on the bone
- milk and milk products
- meat
- game meat
- hides and skins
- other animal products
- trophies

Vehicles
- trucks
- private cars

People

Periods of high risk

Peak Tourism period (summer holidays in Europe)
Return of migrant workers from holidays in their home countries (September)

Periods of religious festivals (Kurban holidays in Turkey)

Routes of entry

- Places of illegal crossing of terrestrial borders (illegal immigrants from Asiatic countries)
- Ferry boats (+ Cruise boats) between North Africa, Turkey, Black Sea and Europe
- Harbours: special attention should be paid to catering on ships and boats, to duty free shops, free port facilities and all places which are not under the control of national Veterinary Services (e.g. Piraeus in Greece was the port of entry of meat legally imported from India to Albania)
- Trucks: snacks, food and drivers belongings
- Private vehicles
- Airports (while scanning luggage at arrival, it is recommended that meat or at least meat on the bone should be detected - dogs could also be used to detect meat!)
- Yatchung harbours (waste food)

Chain of contamination in the country of destination

- contact between infected animals or contaminated products and susceptible animals is required
- garbage in bins along international motorways and highways
- swill distributed to pigs
- contaminated vehicles which have transported infected animals or contaminated products - the risk associated with external contamination of the vehicle or of the wheels is more limited

Specific threats associated with the situation in Turkey and in the Middle East

Epidemiological situation

- FMD continues to be endemic in the Middle East, Iran and Turkey, however the number of outbreaks has decreased in Turkey since 1995
- New type A strain. outbreaks have been reported in 9 Provinces of Turkey including 3 Provinces in Western Buffer Zone since its introduction . However the propagation of the virus was not as widespread as had been feared:
- Poor surveillance of FMD in the eastern part of the country may explain the low numbers of outbreaks reported

Control measures

- The quality of the vaccine used in Turkey is uncertain
- No vaccine available against the new strain in Turkey
- Cattle are not identified
- The movements of animals are not properly controlled

Risk to neighbouring countries:

- illegal crossing of the border by susceptible animals
- Populations of Turkish origin living in border areas

- Live animal or meat price differentials can be inductive for illegal importation into Europe
- payment of premium or of compensation in case of disease may also be inceptive to illegal import of live animals
- trucks and private vehicles in transit
- Turkish workers returning to Western Europe after their holidays (may carry fresh food of animal origin for two days of travel)

Risk to other countries in Europe

- Turkish workers returning to Western Europe after their holidays (the risk with fresh food is less important than preserved animal products, or milk products)
- Vehicles

Specific threats associated with the situation in CIS countries

Epidemiological situation

- FMD is present in Armenia and was present in Georgia in 1997, the situation in Asiatic countries is unclear
- New type A strain in Armenia
- Poor surveillance of FMD in Russia and in other counties due to lack of resources

Control measures

- uncertain vaccination coverage in Transcaucassian area
- No vaccine available yet, against the new strain in Vladimir Institute Russia
- Free movement of animals and animal products between the CIS countries
- cattle are not identified

Risk to neighbouring countries:

- illegal crossing of the border by susceptible animals (sub-clinically infected)
- legal crossing of borders with official certificates but with false or unclear animal origins (or accompanied by forged certificates)
- Live animal or meat price differentials can be inductive for illegal importation into Europe
- payment of premium or of compensation in case of disease may also be inceptive to illegal import of live animals
- trucks and private vehicles in transit
- travellers/truck drivers may carry fresh food of animal origin for two days of travel
- risk of delays in reporting and reacting to an outbreak - during this period of delay, no restriction measures will be taken at the borders

Risk to other countries in Europe

- workers returning to Western Europe after their holidays (the risk with preserved animal products is less important than with fresh food or milk products)
- Vehicles, trucks coming from Asiatic or Transcaucassian Republics
- Illegal immigrants

Origin of the introductions of FMDV in Europe since 1990

1991	Bulgaria	Illegal import of one goat
1993	Bulgaria	Illegal crossing of the border by small ruminants
	Italy	False certification of imported cattle
1994	Greece	Illegal import of sheep in Lesbos Island
1996	Albania / FYR of Macedonia	Import of meat on bone / or import of live animals from infected country
	Greece	Illegal immigrants
	Bulgaria	Unknown

Proposal for measures to decrease the risk of introduction of FMDV by tourists and workers

awareness campaign with leaflets distributed at the border

- one model for people and vehicles entering Europe is attached (Annex I)

destruction of animal products on the spot at the terrestrial border

awareness campaign in airports and harbours

- on the risk of waste food from planes/boats coming from infected countries. The campaign should be targeted at airline companies, catering companies and airport management companies (model in Annex II)

training of Veterinary teams at the border

training of Custom Officers/Police/Border Guards

Increasing their awareness of the countries with particular risks and reinforcing the controls applying to vehicles and travellers from these countries

encourage legal trade by simplifying import and testing procedures, and decreasing taxes/excise duties to discourage illegal trade

Annex I

Tentative text for a leaflet to be distributed to tourists on their return to Europe in their national language + one or several of the following languages : English, French, German, Turkish, Arabic or Russian.*

DANGER ! YOU MAY BE UNINTENTIONALLY CARRYING FOOT-AND-MOUTH DISEASE VIRUS WHICH CAN INFECT LIVESTOCK IN THIS COUNTRY OR IN YOUR COUNTRY OF FINAL DESTINATION !

You have come from a country that is not free of Foot-and-Mouth Disease and you are entering a country (or countries) that is free of this disease. Foot-and-Mouth Disease is a highly infectious viral disease of livestock (cattle, sheep, goats, and pigs) which is not harmful to humans, but which may cause dramatic losses when it infects livestock populations.

The virus is transmitted by infected animals, but it can also be transmitted by **meat, meat products, milk, dairy products, hides, skins or animal trophies** and subsequently infect susceptible animals which consume or are put in contact with these products.

You are kindly requested to inform the Customs Officer:
- if you are carrying any products of animal origin - including the food that you may have brought for consumption during your journey

or

- if you have visited a farm with cattle, sheep, goats or pigs on your travels. You should disinfect your shoes and clothes and avoid visiting farms or other places with susceptible animals for five days.

Never throw any food to animals along the road. You should keep your waste food in a plastic bag and put it in the special bins.

It is prohibited to feed this waste food to pigs.

(* EUFMD may provide support for translation of short leaflets in these languages, free of charge for member countries, the costs, if any, will be supported by EUFMD)

Annex II

Awareness campaign for companies in Airports and Harbours (airlines, catering companies and airport and harbour authorities) on the risks associated with waste food from planes and boats coming from Foot-and-Mouth Disease infected countries.

DANGER ! YOU MAY UNINTENTIONALLY INTRODUCE FOOT-AND-MOUTH DISEASE VIRUS WHICH CAN INFECT LIVESTOCK IN THIS COUNTRY OR IN OTHER COUNTRIES IN EUROPE !

Foot-and-Mouth Disease is a highly infectious viral disease of livestock (cattle, sheep, goats, and pigs) which is not harmful to humans, but which may cause dramatic losses when it infects livestock populations.

You manage a transport company having regular commercial relations with countries that are not free from Foot-and-Mouth Disease.

The virus is transmitted by infected animals, but it can also be transmitted by **meat, meat products, milk, dairy products, hides, skins or animal trophies** and subsequently infect susceptible animals which consume or are put in contact with these products.

You are kindly requested to:

- take all necessary measures for the destruction by heat (min 100 degrees C for 20 min) of all waste food coming from your planes/boats.
- contact the National Veterinary Services on the local procedures to be followed to safely eliminate the waste food, which should never be distributed to animals.

REPORT ON THE STATUS OF CONTINGENCY PLANNING IN MEMBER COUNTRIES.

JOHN RYAN & YVES LEFORBAN

INTRODUCTION

At the 32nd Session of the Commission it was decided that the Secretariat was to be informed of the status of member countries' contingency plans and that the executive committee should follow up on the report of the situation. The contingency plans were assessed by questionnaire prepared in English and in French.

This report will initially take a look at the response rates to the questionnaire. This will be followed by an analysis of these responses. Then a special section will outline the specific constraints mentioned by member states. This will be followed by an analysis of the role of EUFMD in relation to contingency planning and finally the conclusions.

RESPONSE RATES

Results

The response rate was good with 30 responses and only 3 countries not responding. Of these responses 21 countries supplied a copy of their plan while 9 did not. Of the 15 EU countries, 14 responded to the questionnaire, and all included a copy of their plan. Of the 18 non-EU countries, 16 responded to the questionnaire, but only 7 included a copy of their plan. Four countries have plans in preparation but 5 did not supply a copy of the plan.

Comment

The importance of having a contingency plan to deal with a crisis situation cannot be over emphasised, as the quality of decision-making under such crisis situations is directly proportional to the amount of planning and information gathering which has taken place before the outbreak.

ANALYSIS OF RESPONSES

The questionnaire examined all aspects of the contingency planning process:

1) the necessary legal powers
2) financial provisions
3) the chain of command
4) the resources required
5) the procedures and protocols defined
6) staff training
7) awareness campaigns
8) the decision and preparedness for emergency vaccination

1) LEGAL POWERSResults

This section of the questionnaire analysed whether the necessary legal powers are available to the Veterinary Services to adequately deal with an outbreak situation.

All of the 30 countries that replied can enlist the help of the police and other authorities, can impose restrictions on animal movements and can initiate emergency vaccination. All but 2, i.e. 28 countries, can impose compulsory slaughter of infected and in-contact animals and can subsequently destroy the infected and in-contact animal carcasses. Legal provisions for the compensation of farmers following compulsory slaughter are in place in 26 countries.

Constraints specific to the legal aspects of contingency planning were mentioned by four countries. These included not having enough funds to implement the law, difficulties in defining control zones, difficulties in modifying the legislation to allow compensation payments, existing legislation allowing local authorities to act independently, and social factors and constitutional clauses preventing prolonged and complete animal movement restrictions.

Comment

In general the legal powers are adequate. All or part of the countries which don't allow compulsory slaughter lie outside Europe and practice preventative vaccination and ring vaccination around an outbreak. The constraints mentioned are specific to certain countries are not generalised problems.

2) FINANCIAL PROVISIONS

Results

The number of responses to this section was lower than that for other sections as only 23 member countries provided financial details. Only 13 countries have emergency funds permanently available, 6 more countries need to get governmental approval.

The total budget for animal health in member countries ranged from $400 million to 1 million with a mean of $33.3 million. This corresponds to a range of $25 to $0.36 (mean=$6.2) per head of susceptible livestock. Twelve countries reserved funds for payment of compensation and these funds ranged from $16 million to $10,000 (mean=$3.2 million). This corresponds to a range of $5 to $0.50 (mean=$1.6) per head of susceptible livestock.

The cost of maintaining an emergency vaccine/antigen stock was given by two countries. The total costs were given as US$580,000 and US$ 9 million, which corresponds to $0.21 and $0.32 per head of susceptible livestock.

Comment

Getting governmental approval for the necessary funds can be slow and add additional delay in an emergency situation.

The figures per head of livestock are only indicative of the level of preparedness and financial commitment of member countries' governments and they do not allow for the large variation in size of the member countries.

The available funds per head of livestock and the costs of maintaining a vaccine bank per head of livestock are useful for comparison between countries of equivalent size and can be used to justify the case for more funds when petitioning governments.

Comparing these budgets is difficult as the cost of implementing a contingency plan (labour, transport, communications, vaccine, facilities, equipment, disposables, compensation to farmers etc.) and the costs associated with the implications of an outbreak (effects on international trade,

social impact, loss of production, loss of genetic resources etc.) vary greatly between countries and even between regions within countries.

For example, the total cost of all the control measures required to deal with an outbreak, and therefore the amount of funding required (for vaccine stocks, equipment, compensation funds etc.), varies significantly between an outbreak in densely populated pig exporting region of high cost western Europe, and an outbreak in sheep in a sparsely populated region of lower cost eastern countries.

In conclusion, the response to this section could be better. Much more data is required to make an assessment on whether there is sufficient funds available to deal with an outbreak. Compensation funds are highly recommended as they are critical in ensuring that farmer vigilance is the first line of defence.

There are 3 categories of costs which should be clearly calculated and up-dated regularly when securing funding for FMD (and other OIE listed diseases) from the political decision-makers:

1) Prevention costs – the costs that can be attributed to all the measures taken to prevent the introduction of the disease. These include awareness campaigns, training, border controls, controls and certification of trade in animal products, on-going animal identification programmes etc.

2) Control costs – the costs that will be incurred in dealing with a disease outbreak. These include extra man-hours, transport of material/equipment to disease site, cost of slaughtering and destruction of carcasses, compensation payments to farmers etc.

3) Implication costs – the cost of a disease outbreak in terms of lost trade, lost production, lost genetic resources, and the socio-economic impact on the region.

It is recommended that the total of Control costs (2) and Implication costs (3) are used to justify adequate funds to cover Prevention costs (1).

In justifying the availability of funding for Control costs (2) , it is suggested that the costs are calculated for several scenarios (worst case, best case, & a range of more probable scenarios) and a weighted average is calculated of these costs (the weights can be derived from probabilities suggested by a thorough risk analysis). This weighted average cost of controlling an outbreak can justify the provision of an emergency fund, when it is compared to greater costs like lost trade for longer periods, or the cost of not containing an outbreak.

In the larger countries, it would be useful if each region undertook this same economic analysis.

As the agricultural industry gains the greatest benefit from effective prevention and control of FMD, state veterinary services should explore any arrangements where the substantial costs involved could be shared with the industry. This may be essential in the future as European tax payers become less willing to support agriculture either directly or indirectly. Two ways which could be explored are the creation of revolving funds administered by the industry, or a system of insurance against the costs involved in an outbreak, where the premiums to be paid by each enterprise are based on the risk associated with their activities i.e. an importer of pigs for fattening in a densely populated region would pay more than a combined breeding-fattening enterprise in a region with a low population of pigs.

It is because the industry doesn't pay for the disease prevention costs incurred by its activities in international trade that such trade is so attractive and offers the potential for increased profits at

the tax payers expense. Disease prevention and control costs are real and significant, if mechanisms were put in place where the full costs of disease control were allocated to those activities which carried the greatest risks, then such costs would act as a deterrent and help to reduce the overall risk of introduction of FMD. As veterinary services are under increasing pressure to remove barriers to trade under GATT and WTO agreements, new mechanisms must be found to protect the livestock populations under their care and new mechanisms of financing this increased workload must also be found. This is why these options should be fully explored and supported.

3) CHAIN OF COMMAND

Results

A direct chain of command exists 29 countries. A National Disease Control Centre (NDCC) exists in all countries. It is headed by the CVO in 19 countries, by another officer in 6 countries, by the minister in 1 country and it is not clear who heads the other 4 NDCC's. In one country representatives of the 5 Ministries involved in emergency situations have representatives at the NDCC.

The organisation of the NDCC varies greatly between countries. The number of staff within the Centre varies from 3 to 12. The equipment listed in the questionnaire is available in 22 countries.

Regional Disease Control Centres (RDCC) and/or Local Disease Control Centres (LDCC) exist in 24 countries. The number of RDCC and LDCC varies from 0 to 500. The structure and arrangements between national and regional disease control centres varies considerably across countries.

Comment

The different arrangements and structure of disease control centres in the countries reflects differences in size, administrative history, power distribution, etc. It is not correct to judge a "right" or "wrong" structure, the only issue is whether any given structure is appropriate to the size of a country, the culture of the staff etc. What is really important its that the correct decisions are made. Clear leadership and rapid decision making are required in a crisis and often structures can have an undue influence on the flow of essential information to the decision makers and on the implementation of those decisions.

It is recommended that all countries recognise the shortcomings of whatever structure is in place i.e. it might be prudent to decentralise decision making and control in large countries, as long as a clear chain of command is still functioning and the regions can be trusted with correct decision making, while in smaller countries it may be more prudent to centralise the decision making and maximise the use of scarce expertise.

4) RESOURCES REQUIRED FOR DISEASE EMERGENCIES

The questionnaire enquired about the various resources needed to deal with an outbreak, i.e. personnel – in terms of manpower and expert teams – equipment, materials and communications.

The actual manpower available in the veterinary services to deal with an outbreak varies from 40 to 3,000 persons. This labour pool can be supplemented with private veterinarians and practitioners in 7 countries. Personnel issues are decided and organised at national level in 12 countries, at regional level in 6 countries and at both levels in 6 countries. Shortage of manpower was listed as being due to budgetary restrictions, difficulties involving private vets and a lack of any practical experience of FMD amongst the great majority of personnel.

In response to these constraints, other possibilities which could be explored are hiring national or international consultants for the period of the outbreak, sub-contractors - veterinary or other specialists or commandeering staff from other governmental departments.

One or several teams of experts exist in 21 countries. In 4 countries there are several teams who can operate at the same time. Each team consists of 3 to 6 experts who are specialists in virology, epidemiology, weather forecasting, communications, an economist etc. In 2 countries these teams meet regularly even during periods of absence from the disease.

Equipment for collection and transport of samples is available in 29 countries, it is available in the national laboratory in 20 countries, in the regional laboratories in 5 countries and in the RVO or DVO in 9 countries.

In terms of equipment for humane slaughter, special vehicles for the humane killing of pigs are available in 3 countries, electric devices for the humane killing of animals are available in 7 countries and captive bolt guns are available in 12 countries. However, no special equipment for humane killing is available in 12 countries. Slaughtermen with their own equipment can be involved in 13 countries, and equipment for disinfection is available in 10 countries.

In terms of materials, 23 countries have protective clothing available, but in 12 countries, this is limited to expert teams or Disease Control Centre (DCC) staff only. Stocks of chemical products or disinfectants are available in 19 countries and an additional 3 countries have special contracts with private manufacturers. In 11 countries additional equipment for cleaning , disinfection and for burying animals (excavators) can be obtained by leasing. Advance arrangements or service contracts are made in only three countries.

Communication Equipment exists in all countries at the national (NDCC) and regional levels (RDCC, LDCC). Fax facilities are present in all centres and 12 NDCC are equipped with mobile phones. It is safe to conclude that communication is no longer a major problem in member countries.

The specific constraints mentioned in regard to resources were a lack of funding and a lack of standing arrangements for sanitation, while the more general constraints were a lack of advance contracts and a lack of facilities for humane slaughter.

5) PROCEDURES

Results

Written instructions for dealing with FMD outbreaks exist in only 21 countries but were updated in 1997 or 1998 in only 12 countries. Eight countries updated them between 1995 and 1996 and 2 countries updated them pre-1994.

Comment

The importance of written protocols/plans that are updated regularly cannot be too highly emphasised. There is also no conclusive evidence from the questionnaire that these documents/manuals are in place.

Results

The collection of samples is also very varied with the National Laboratory responsible in 7 countries, the regional laboratory in 2 countries, a team of experts in 5 countries, the DVO in 9 countries and the local veterinarian in 5 countries. Standing arrangements for sending suspected material to the WRL exist in only 10 countries and of these only 2 countries have pre-printed export permits and standing arrangements with air companies.

Comment

Once again the method of collection of samples is not as important as the result which should be: rapid sampling by well-equipped competent vets or technicians in the field. The 1996 outbreak in the Balkans showed that in the absence of standing arrangements with air companies and the WRL transporting samples may take some time.

Rapid diagnosis and characterisation of the virus strain by a competent laboratory and/or the WRL is highly recommended but the results do not suggest that sufficient advance arrangements have been made in this regard. It must be recalled that this commitment to provide the WRL with all new isolates – ideally all index cases – is included in Paragraph 4, Article II of the Constitution of the Commission.

6) TRAINING

Results

Only 20 countries organised training workshops and their number varied from 1 to 20 per year. Simulation exercises were organised in 17 countries and were combined with the training workshop in 8 countries. Material for training is prepared in 17 countries and videos for training are prepared in 9 countries. Constraints for training were mentioned in 11 countries, and include the increase in the official tasks of veterinary service, a lack of training material, the cost, a lack of personnel, and a lack of experience in organising simulation exercises.

Comment

Training programmes are not a strong enough feature in the plans, and should be increased. Simulations are needed to keep awareness and freshness. Assistance can be provided in designing and organising these simulations. The constraints as regards training are generalised problems but may be overcome by giving a higher priority to FMD, committing more resources to FMD and getting assistance from EUFMD or other countries with more experience in specific areas. This can be justified as simulations and training for FMD can also have benefits in the control of other exotic diseases.

7) AWARENESS CAMPAIGNS

Results

In the period 1995 to 1997 there were 11 countries where a suspicion of vesicular disease has been reported, there were 12 countries with no suspicions of vesicular disease and in 7 countries there was no answer to the question. In total, 110 false suspicions for vesicular diseases were notified that is an average of 35 suspicions per annum that were ruled out by national experts and in some cases after laboratory testing.

Awareness campaigns are conducted for vets in 22 countries, for farmers in 18, for farmers associations or the industry in 19, and for the public and consumers in 14.

The media used depends on the target group, sanitary bulletins, and professional magazines for veterinarians, professional magazines and farmers journals for farmers and the industry and TV and the printed press for the general public. One country also uses the internet to disseminate FMD information. One country also arranges a special programme for airlines serving infected countries.

The absence of FMD for many years in the great majority of countries is reported as a major constraint for awareness campaigns as private vets and farmers become de-sensitised to the campaigns.

Comment

Where no suspicions are reported it may be due to low levels of awareness or surveillance or particularly in countries that are free of the disease, that the reporting procedures are too complex i.e. the costs and consequences of reporting false suspicions are too high for the farmer and the vet.

When it comes to awareness, all national veterinary services have limited resources in terms of man-hours and funds, therefore it is all the more important that strategic use is made of them. Some countries only organise campaigns at the time when the disease has entered neighbouring countries, this may be too late!!! It is suggested that a basal awareness campaign should be maintained at all times, and in the case of increased threat, that this campaign should be boosted.

The aims of an awareness campaign should be to sensitise all citizens to the dangers of FMD, while targeting sub-groups of the population with more specific knowledge when required. A strategic awareness plan should build the general awareness of the population over time. A suggestion is as follows:

The short term goal would be an awareness campaign to target any group dealing with infected countries (tourists, traders, transport companies) and give them a basic awareness of the do's & don'ts.

A medium term goal would be to target all relevant professionals/technicians (vets, agriculturists, customs professionals, police etc.) and ensure that they are given a full appreciation of the dangers, the economic impact and the control methods for FMD and other OIE listed diseases. They should be thoroughly educated as to their role and responsibilities in the control of these diseases, and this includes regular refresher courses for all these professionals.

The long term goal is to raise the general awareness among the population, and activities can be taken to target young people in schools to give them a basic appreciation of the importance of the OIE-listed diseases and outline their civic duties regarding disease prevention and control. This may overcome the problem of ignorance when tourists illegally import animal products from infected countries and will mean that warnings given later in their lives will have a greater impact.

As the volume of international travel and trade continues to grow, there is a need for veterinary services to modify their view of exotic diseases. It may no longer be possible to police and control all the movements of people, animals and animal products which can impact on a country's disease status. In this scenario, prevention of animal diseases becomes a concern for everybody.

8) ARRANGEMENTS FOR EMERGENCY VACCINATION

Results

The decision to vaccinate is taken by the CVO in 14 countries, by the minister in 7 countries and by a committee in 9 countries. Whether there will be rapid access to a vaccine bank with the relevant strain and to the necessary vaccination equipment is not clear from the results of the questionnaire.

Comment

Clear rules on the scenarios, criteria and thresholds when emergency vaccination should be implemented and on the procedure for arriving at this decision should be included in the contingency plan. Consulting with trading partners and international organisations is also highly recommended as it can clarify and simplify the process for re-instating trade when the country or region is free from the disease again. This is reflected in the recent history of outbreaks in Europe,

when decisions to vaccinate were not taken at purely national level but in a committee which included representatives of international organisations.

An examination of the whole information system leading to such a big decision is suggested, i.e. the arrangements for reporting, gathering data, processing the information, the role of decision support programmes, thresholds, scenarios, computer models etc.

CONSTRAINTS

Specific problems with the whole process of contingency planning are: the absence of disease for several decades de-sensitising farmers and vets, the shortage of funds, the lack of personnel, the disposal of cadavers while respecting the environment, access to vaccine banks, the involvement of other authorities/associations/police/industry, involvement of private veterinary personnel, the limited number of experts and staff with experience in FMD and the difficulty in giving contingency planning a high priority among the many other tasks of the veterinary service.

ROLE OF EUFMD

The role of EUFMD got a very mixed bag of responses and this was due to the open nature of the question where countries were free to suggest any response. The most popular role identified was to inform and co-ordinate FMD surveillance and control suggested by 19 countries, followed by dissemination of information (10 countries), and the organisation of meetings/training courses and promoting regional co-operation suggested by 9 countries. There was some support for the roles of advising on contingency plans (8 countries), of preparing guidelines (4 countries), of providing equipment and vaccine (3 countries) and of helping countries gain access to vaccine banks (2 countries).

This mixed bag of responses probably reflects the different status of member countries in terms of their economic and political circumstances as well as their disease status. As countries needs differ so do their expectations from EUFMD.

This is also reflected in the replies to the question on which particular aspects of contingency planning that the support of EUFMD is expected. 11 countries expected technical advice and co-ordination, 9 countries expected training and simulation exercises, 8 countries wanted a team of experts from EUFMD to assist in outbreaks of FMD, 2 countries expected EUFMD to help non-EU countries, 2 countries expected grant-aid for their National Diagnostic Laboratory, and 6 countries expected EUFMD to create publicity and disease awareness.

All 30 countries agreed that their contingency plans and the other information that they provided could be circulated to other member countries. All countries also agreed to share their experience and provide support to other member countries in the preparation of their plans.

CONCLUSIONS

For EUFMD we conclude that the questionnaire was a useful exercise and that it should be repeated regularly to track improvements or slippages in contingency planning. It is hoped for a better response from non-EU countries and an increase in the number of plans submitted. Assistance can be given to any member country in the preparation or validation of a plan. A small stock of non-perishable equipment has been ordered for Rome as agreed.

There will always be resource constraints even in the richest countries. What must be remembered is that finance is only one resource of many, yet it seems to get most of the attention.

Leadership, good planning and sound management are far more important resources which should not be forgotten.

As the only true measure of a contingency plan is its success when confronted with a real outbreak, validation by simulation should be a priority for all countries. This cannot be emphasised too strongly.

To follow up this report it is suggested that EUFMD:

1) prepare guidelines for the creation and validation of contingency plans

2) assess the availability of emergency vaccine and vaccination equipment by questionnaire

3) repeat the questionnaire at regular interval to track progress in contingency planning

4) make current training materials available in English as in French

Appendix 12

EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE
Thirty-third Session
Rome, Italy, 7-9 April 1999

PROVISIONAL AGENDA

Item 1. Adoption of the Agenda

Item 2. FMD situation in Europe and in other regions

Item 3. Report on the Commission's activities during 1997-1998

Item 4. Report on the situation in Turkey

Item 5. FMD control in CIS countries

Item 6. Report on the activities of the Research Group during 1997 and 1998.

Item 7. FMD laboratories:

- report of the FAO WRL,
- national laboratories,
- quality assurance

Item 8. Progress in the implementation of Contingency Plans in Member countries.

Item 9. Availability of vaccines for emergency vaccination in Europe.

Item 10. Financial matters: accounts 1997 and 1998 and proposed budgets 1999, 2000.

Item 11. Election of Chairman, vice-Chairmen, members of the Executive Committee - Members of the Research Group.

Item 12. Any other business.

Item 14. Adoption of the draft report.

18.12.98