Appendix 1

FMD Situation in Europe and other Regions 2000

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INTRODUCTION

The first outbreaks of Foot-and-Mouth Disease (FMD) in Europe, since type O was reported in Bulgaria in 1996, occurred in Greece in July ending almost 4 years of freedom on the European continent. This reinforces the warnings issued by the Commission that the threat of introduction of FMD into Europe from Turkey, the Middle East and the Trans-Caucasian countries persists.

Overall, the year 2000 was a particularly bad year with outbreaks of FMD occurring in many countries and regions that were previously free of the disease (such as Japan, Republic of Korea, Russia, Mongolia, Greece, Uruguay, the state of Rio Grande do Sol in Brazil, etc.) and the movement of serotypes beyond their traditional zones (Asia 1 in Greece, and SAT 2 in Saudi Arabia and Kuwait). Therefore, it is worthwhile to strongly emphasise that the risk to Europe remains high and that a long history of freedom from the disease and even barriers such as seas and long distances do not guarantee continued freedom from the disease as was demonstrated by this years outbreaks in Japan and Republic of Korea.

The immediate threats to Europe arise from the fact that parts of Anatolian Turkey, the Caucasian region and the Middle East remain endemic for FMD and within these regions 4 serotypes - O, A, Asia 1 and Sat 2 - circulated in 2000.

Only two member countries, Turkey and Israel reported outbreaks of FMD in 1999, and two member countries, Turkey and Greece reported outbreaks in 2000.

In 1999.....

64 countries officially reported outbreaks of FMD to the OIE, WRL or FAO. Forty four countries reported outbreaks of only one serotype - predominately type O - and 20 countries reported outbreaks of 2 or more different serotypes. Serotype O was reported in 50 countries, A in 18 countries, Asia 1 in 6 countries, SAT 1 in 5 countries, SAT 2 in 6 countries, SAT 3 in 1 country and there were no reported outbreaks of type C in 1999.

In 2000 (up to October).....

52 countries officially reported outbreaks of FMD to the OIE, WRL or FAO. Thirty eight countries reported outbreaks of only one serotype - predominately type O - and 14 countries reported outbreaks of 2 or more different serotypes. Serotype O was reported in 34 countries, A in 11 countries, Asia 1 in 5 countries, SAT 1 in 6 countries, SAT 2 in 4 countries, SAT 3 in 1 country and C in 1 country.

EUROPE 2000

Outbreaks of FMD serotype Asia 1 occurred in Greece in July. The 14 outbreaks were predominantly restricted to the Evros Delta, on the border with Turkey. Limited spread of the disease occurred within the Prefecture of Evros, and two further outbreaks were reported in the Prefecture of Xanthi, linked epidemiologically to the Evros outbreaks.
See Report of Greece.

**Turkey 2000**

Although there were no reported outbreaks of FMD in European Turkey (Thrace), it is likely that Turkey was the origin of the Greek outbreaks as it has been shown that the nucleotide sequence of the Greek Asia 1 strain was almost identical to that of Asia 1 isolates from Asiatic Turkey (Anatolia).

Outbreaks of FMD due to serotypes O, Asia 1 and two distinct strains of A (referred to as A Iran 1996 and A Iran 1999) have occurred this year in Asiatic Turkey. The European Union (EU) agreed to supply 1.3 million doses of trivalent vaccine containing serotypes O, Asia 1 and A for use in Turkish Thrace. An EU/EUFMD mission visited Thrace in October 2000 to assess the situation and the progress made in the autumn vaccination campaign.

See Item 3.

**CIS Countries 2000**

An FAO/EC/OIE/ARRIAH mission visited the Caucasian region in June-July 2000, and concluded that FMD is now endemic in Armenia, Azerbaijan and Georgia. Serotypes O, A (A Iran 1996) and Asia 1 have been isolated from samples submitted to the OIE Regional Reference Laboratory, ARRIAH, Vladimir (Russia). A buffer zone supported by EC (USD 680,000 over two years) was established since 1999 on the southern border areas of the region using vaccine supplied by ARRIAH Vladimir.

Locally produced FMD vaccine (lapinised) and other Russian vaccines are also used in the region. The mission concluded that the buffer zone has had so far a limited effect on controlling the disease and alternative strategy and measures should be considered to prevent spread from Caucuses into Russia. Russia is also at risk due to the endemic situation of FMD in Kazakhstan, and no buffer exists along the approximately 7,500 km border between Russia and Kazakhstan.

In 2000, FMD type O outbreaks were reported in Georgia, Kazakhstan, Russia and Tajikistan.

FMD type Asia 1 was reported in Georgia and FMD type A was reported in Kazakhstan.

In April 2000, The Russian Federation reported FMD type O in pigs in the Primorskiy Territory in the far east of the country close to the Chinese border and within the vaccination buffer zone. The last report of FMD in Russia was in 1995.

See Item 4.

**Middle East 2000**

In April 2000, Saudi Arabia reported outbreaks of FMD SAT2 in a dairy heard and in June 2000, Kuwait reported outbreaks of FMD type SAT2 in nomadic sheep. These are the first reports of the serotype SAT2 outside Africa.

FMD type O outbreaks were reported from Egypt, Iran, Iraq, Kuwait, Lebanon, Turkey and the United Arab Emirates.

FMD type A outbreaks were reported from Turkey, Iran and Iraq.

Information from the WRL in February 2000, indicated that samples received from Iraq were positive for FMD virus type A. On further characterisation by nucleotide sequencing, it was reported that this virus was closely related to the Iran 96 topotype.
FMD type Asia 1 outbreaks were reported in Iran and Turkey.

**AFRICA 2000**

FMD type O outbreaks were reported from Egypt, Kenya, South Africa and Tanzania.

In September 2000, South Africa reported its first outbreak in the Free Zone since 1957. The outbreaks were in pigs and the source of the virus was swill from visiting ships. This is the first outbreak of FMD type O in South Africa.

FMD type A outbreaks were reported from Kenya.

FMD type SAT1 outbreaks were reported from Malawi, Namibia, South Africa, Tanzania, Zambia and Zimbabwe.

In August 2000, Namibia reported an outbreak of SAT1 in cattle. The source of the virus is believed to be from a neighbouring country. The last outbreak was in 1994. There was also FMD type SAT1 viral activity detected in the FMD enzootic zone of the FMD-control area adjoining the Kruger National Park in South Africa.

FMD type SAT 2 outbreaks were reported from Kenya, and Tanzania.

FMD type SAT 3 occurred in Zimbabwe.

FMD type C occurred in Kenya.

In addition to the above, outbreaks of FMD were reported from Angola, Chad, Ethiopia, Niger, Senegal and Uganda where no serotype has been identified.

It should be noted that many African countries report FMD outbreaks to OIE long after the outbreaks have occurred, these delays can be as long as 6 months to one year and much data for 1999 was only received in 2000.

**ASIA 2000**

FMD type O outbreaks were reported from Cambodia, China (Hong Kong), Japan, Laos, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Sri Lanka, Republic of Korea, Taiwan Province of China, Thailand and Vietnam.

An outbreak of FMD virus type O was reported to the OIE in late January by the Malaysian authorities. The outbreak occurred in Peninsular Malaysia in the state of Selangor and affected small cattle holdings and a nearby commercial piggery. Quarantine measures and modified stamping out were used to control the outbreak.

On the 4th February 2000 Taiwan Province of China reported 3 outbreaks of FMD type O - analogous to O/Taiwan/99 - in cattle. The outbreaks occurred in Yunlin and Chiayi prefectures. The control measures instigated were stamping out, destruction of milk, strict hygienic control and quarantine measures around the farms and the instigation of a nationwide vaccination campaign. This report was followed two weeks later by a report on the 18th February from Taiwan province of China of an outbreak of FMD type O - analogous to O/Taiwan/99 - in goats in Changhwa prefecture. The same measures as previously were implemented with a strengthening of the mass vaccination campaign. This report was followed two weeks later by another report of FMD type O/Taiwan/99 in goats in Kaoshiung prefecture.

On the 1st November 2000, Taiwan reported new outbreaks of FMD type O/Taiwan/97 in pigs in the Taoyuan prefecture. The animals were discovered with vesicular lesions in an
abattoir and were destroyed. After epidemiological tracing, no further cases were found and it is believed that these pigs came from small farms that were not vaccinated.

In March 2000, Japan reported FMD type O in cattle. This was the first outbreak in Japan since 1908. In total, 4 farms were affected, 3 in the Miazaki prefecture on the southern island of Kyushu, and one in the Hokkaido prefecture on the northern island of Hokkaido. The control measures applied were stamping out, intensive surveillance around the outbreaks, tracing of all epidemiological contacts and a national serological survey. No vaccination was applied and Japan has since regained its disease free status. The virus responsible was the pan-Asian topotype O that was prevalent in East Asia in 2000. All the factors described in the international literature were examined as possible routes of entry, the factor which was not ruled out as that linking between infected farms and East Asian countries is imported forage. Many facts support the hypothesis that wheat straw of Chinese origin carried FMD virus into Japan, while there were no facts found nullifying this hypothesis.

Interesting findings from transmission experiments showed that the virus isolated had a low pathogenicity in cattle and transmission between Japanese Blacks takes place but that transmission between Holsteins doesn’t take place. Pigs show typical clinical signs of FMD when infected and transmission between pigs takes place, but infected cattle don’t show vesicles typical of FMD and transmission between infected cattle and pigs doesn’t take place.

In March 2000, The Republic of Korea reported outbreaks of FMD type O in cattle. This was the first outbreak of FMD in Korea since 1934. The virus responsible was similar to O/Taiwan/97. In total there were 15 outbreaks in March-April in dairy and beef farms. The control measures applied were stamping out of infected and neighbouring farms and vaccination in the regions where outbreaks occurred. All vaccinated animals are permanently marked by punching or branding and can only be slaughtered in designated abattoirs. The possible routes of transmission were considered to be by imported hay or straw or even with the "yellow sand" climatic phenomenon.

In April 2000, Mongolia reported FMD type O similar to O/Taiwan/97 and O/Russia/2000 in cattle, sheep, goats and camels. The last outbreaks of FMD in Mongolia occurred in 1973. There were large numbers of animals clinically affected in 26 herds: 685 bovines, 347 sheep, 307 goats and 62 camels. All infected animals were destroyed with compensation paid to the owners, strict quarantine measures were put in place and there was ring vaccination around the outbreaks. The last cases were reported on the 13th June 2000.

FMD type A outbreaks were reported from Pakistan and Thailand.
FMD type Asia 1 outbreaks were reported from Thailand.

**SOUTH AMERICA 2000**

FMD type O outbreaks were reported from Bolivia, Brazil, Columbia, Ecuador and Uruguay.

FMD type A outbreaks were reported from Bolivia, Brazil, Columbia and Peru.

In August 2000, Argentina reported their detection of an exotic FMD type A virus activity in cattle. During routine epidemiological surveillance in the province of Formosa, on the border with Paraguay, they discovered 10 animals that had been illegally imported. Although no clinical signs were present, the animals were preventively destroyed. Sera
from 4 of these animals tested positive to VIAA (virus infection associated antigen) and EIBT (electroimmunotransfer blot) and virus type A24 was isolated from one probang sample. The epidemiological contacts from this farm were traced and subjected to serological examination and movement restrictions were put in place. The results of this tracing and surveillance detected 2 more locations, one in the province of Corrientes and the other in the province of Entre Rios, with seropositive animals. All the animals in these 3 holdings were stamped out. In addition, a serosurvey was instigated for the entire country, with no further seropositives detected. No animal with clinical signs was discovered.

On the basis of an OIE expert mission, the Foot and Mouth Disease and Other Epizootics Commission decided that Argentina should remain on the list of FMD free countries where vaccination is not practised because they believed that an isolated incursion of infected animals had occurred and that the appropriate control measures were taken by the Veterinary Administration of Argentina.

In May 2000, Brazil ceased vaccinating in the southern states of Rio Grande do Sul and Santa Catarina as part of a campaign to have the states recognised as free from FMD without vaccination. In August 2000, Brazil reported outbreaks of FMD type O in cattle and pigs in the state of Rio Grande do Sul. The last outbreaks in this state were in 1993 and the state was recognised as a zone free of FMD with vaccination. The last outbreak was reported on 22 September 2000, bringing the number of outbreaks in the State of Rio Grande do Sul to 22. All sick or potentially contaminated animals in the outbreaks and adjoining properties were destroyed, this comprised 11 067 animals (8 185 bovines, 2 106 pigs, 772 sheep and 4 goats) in a total of 659 properties. Stamping out and movement restrictions were the control measures used and the ban on the use of FMD vaccines in the state remained in place.

In October 2000, Uruguay reported its first outbreak of FMD since June 1990. The outbreak occurred close to the border with Brazil in the 12th Administrative Division, in Chiflero district, Department of Artigas. 40 animals showed clinical signs (29 cattle and 11 pigs). FMD type O was reported as the causal agent. The probable origin of the infection is a sow infected by ingesting feed of animal origin, slaughterhouse waste or contaminated by-products. The control measures used were stamping out and strict movement controls. All susceptible animals in the outbreak zone were destroyed (20 406 animals in 179 holdings).