



Foot-and-Mouth Disease situation

Food and Agriculture Organization of the United Nations

Monthly Report

September 2012

INFORMATION SOURCES USED:

Databases:

OIE WAHID World Animal Health Information Database

FAO World Reference Laboratory for FMD (WRLFMD)

Other sources:

FAO/EuFMD supported FMD networks (EARLN-FMD Eastern Africa, RESOLAB-FMD West Africa)

SENASA, Argentina

FAO/EuFMD projects and field officers

* International Society for Infectious diseases*

* Conference on Scientific Developments and Technical Challenges in the Progressive Control of FMD in South Asia, New Delhi, India, 13-15 February 2012.*

* Final report On Laboratory training course on Foot & Mouth disease diagnosis, Accra veterinary laboratory 17 – 21 September 2012*

SEACFMD

* 84th Session of the Executive Committee of the EuFMD Commission*

The sources for information are referenced by using superscripts.

The key to the superscripts is on the last page

ACKNOWLEDGMENT:

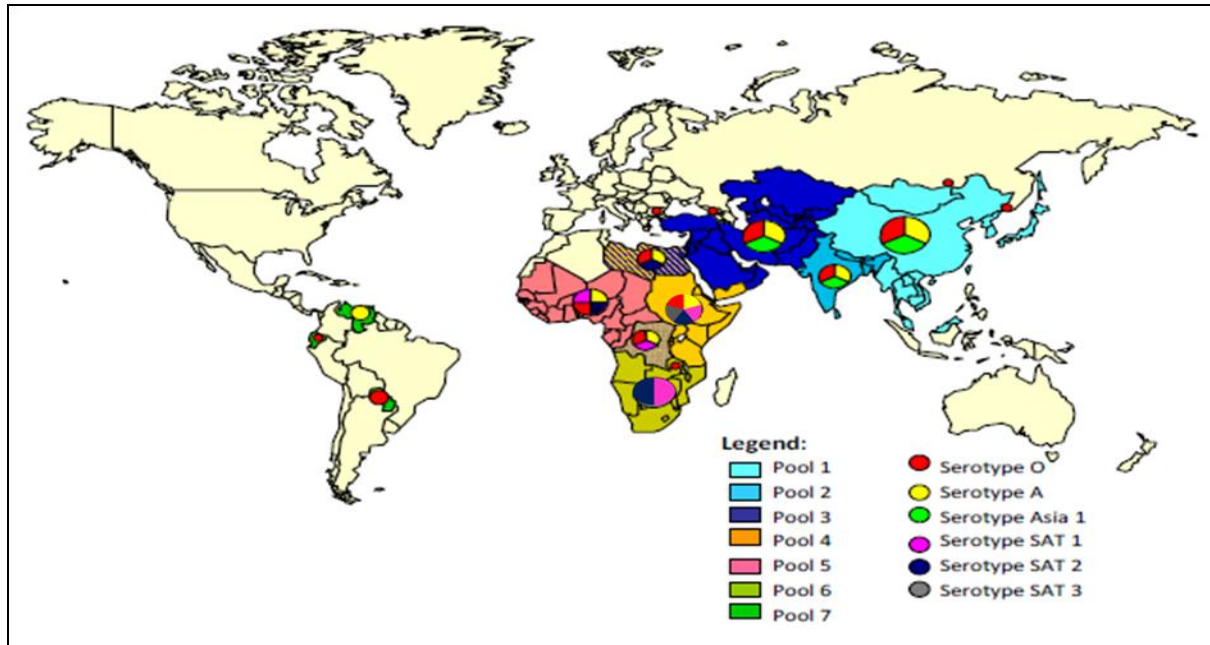
FMD INSTITUTE, ANKARA, TURKEY AND NCFAD, CANADA AND CODA-CERVA FOR THEIR VALUABLE INPUTS

Please, note that the use of information and boundaries of territories should not be considered to be the view of the U.N. Please, always refer to the OIE for official information on reported outbreaks and country status.

I. GENERAL OVERVIEW

Foot-and-mouth disease (FMD) distribution by Serotype and the seven virus pools, 2010-2012

Pools represent independently circulating and evolving FMDV genotypes; within the pools, cycles of emergence and spread occur that usually affect multiple countries in the region. In the absence of specific reports, it should be assumed that the serotypes indicated below are continuously circulating in parts of the pool area and would be detected if sufficient surveillance was in place.



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POOL	REGION/COUNTRIES	SEROTYPES
1	<u>CENTRAL/EAST ASIA</u> (Cambodia, China (People's Rep. of), China (Hong Kong, SAR), China (Taiwan Province), Japan, Korea (DPR), Korea (Rep. of), Lao PDR, Malaysia, Mongolia, Myanmar, Russian Federation, Thailand, Viet Nam)	O, A, Asia 1
2	<u>SOUTH ASIA</u> Bangladesh, Bhutan, India, Nepal, Sri Lanka	O, A, Asia 1
3	<u>WEST EURASIA & MIDDLE EAST</u> (Afghanistan, Armenia, Azerbaijan, Bahrain, Bulgaria, Egypt, Georgia, Iran, Iraq, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Libya, Oman, Pakistan, Palestine Autonomous Territories, Qatar, Saudi Arabia, Syrian Arab Republic, Tajikistan, Turkey, Turkmenistan, Uzbekistan)	O, A, Asia 1
4	<u>EASTERN AFRICA</u> (Burundi, Comoros, Congo D. R., Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Rwanda, Somalia, North Sudan, South Sudan, Tanzania, Uganda, Yemen)	O, A, SAT1, SAT2, SAT3
5	<u>WEST/CENTRAL AFRICA</u> (Benin, Burkina Faso, Cameroon, Cape Verde, Central Afr. Rep., Chad, Congo D. R., Congo R., Cote d'Ivoire, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea Biss., Guinea, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome Principe, Senegal, Sierra Leone, Togo)	O, A, SAT1*, SAT2
6	<u>SOUTHERN AFRICA</u> (Angola, Botswana, Congo D. R., Malawi, Mozambique, Namibia, South Africa, Zambia, Zimbabwe)	{O, A}**, SAT1, SAT2
7	<u>SOUTH AMERICA</u> (Ecuador, Paraguay, Venezuela)	O, A

* NOT CONFIRMED IN THE PAST 30 YEARS IN DOMESTIC ANIMALS

** ONLY IN NORTH ZAMBIA AS OVERSPILL FROM POOL 4

Egypt and Libya are indicated as being in multiple pools, since they have evidence of FMDV originating from 2 or more pools in the recent past (4 years).

II. HEADLINE NEWS

Pool: 1 China¹, 1 outbreak, started 06.9.2012 in the village Muyu, Bomi, TIBET, serotype O

Cambodia⁹ no data on virus serotype which caused 2 outbreaks in July 2012.

Pool 2: India, FMD suspicion³ Lack of information release on FMD circulation in recent months hinders assessment.

Pool 3: Turkey, Asia epidemic is in declining phase, outbreaks are now similar in proportion to O, A, Asia 1
19 outbreaks of O, A and Asia 1 serotypes in September 2012¹¹

Egypt has at least 3 serotypes of FMDV and a number of topotypes O/ME-SA/Egy-72 (2006-2009), A/Africa/G-VII (Ken-05) (2006 & 2009), O/ME-SA/PanAsia 2 (Egy-09) (2009 & 2011) A/Asia/Iran-05 (Bar-08) (2010-2011), A/Africa/G-IV (ISM-12) (2012), SAT2/VII/Alx-12 (2012), SAT2/VII/Ghb-12 (2012)¹⁰

Pool 4: Kenya², SAT2 outbreaks in intensive small holder dairy areas of the Rift Valley

Pool 5: New capacity established for FMD typing - FAO RESOLAB-FMD Laboratory training course. Serotype O was detected from the Ghana samples, while serotype SAT2 from both the Nigeria and Cameroon samples.

Pool 6: Botswana¹ SAT2 outbreak (not affecting the status of FMD free zones).

Pool 7: Small areas of the continent are considered as endemic but clinical cases have not been reported from Ecuador, Venezuela and Paraguay in 2012, a significant possible improvement over previous years

III. DETAIL POOL ANALYSIS

Most of the countries submitted the two 6 - monthly reports to OIE for 2011. Some of them have already submitted Jan-Jun 2012 reports (China Peoples Rep. of, Malaysia, Thailand, Bulgaria, Egypt, Turkey, Guinea Biss., Guinea, Nigeria, and Ecuador).

Laos PDR, Turkmenistan, Uzbekistan, Rwanda, Eritrea, Libya, Burundi, Yemen, Cape Verde, Chad, Congo R., Gambia, Sao Tome Principe, Angola and Venezuela have not reported to OIE since 2011.

POOL 1 CENTRAL / EAST ASIA

China¹, 1 outbreak in the village Muyu, Bomi, TIBET started 06.9.2012. and confirmed by laboratory testing (real time PCR-positive, ELISA-positive, virus isolation-positive) in Lanzhou Veterinary Research Institute (OIE's Reference Laboratory) on 12.9.2012. The Chinese National Foot-and-Mouth Disease Reference Laboratory confirmed that the livestock were infected with **type O** FMD. It is reported 123 affected cattle, 108 affected swine. As a response to outbreak, 305 pigs, 8060 sheep/goats and 6141 cattle were vaccinated. This outbreak is reoccurrence of FMD after the outbreak reported in February 2012.



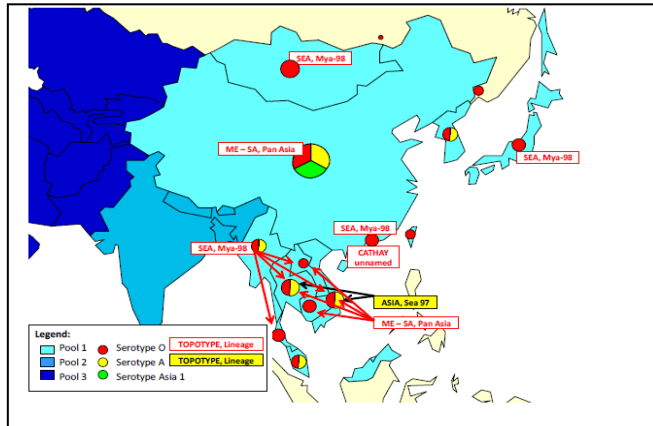
Chinese Taipei¹, FMD event resolved. In the region KINMEN, Jinning Township, 4 FMD outbreaks on the farms were reported in the period 26.01.-09.02.2012. After getting NSP antibody negative results in all tested animals, in the 3 km radius around the affected farms, Chinese Taipei declares this FMD event resolved.

Measures applied were stamping out, quarantine, movement control inside the country, screening, disinfection, no vaccination and no treatment of affected animals.

This was the first occurrence of FMD serotype O South-East Asia (SEA) topotype.

Pool 1, Korea (Rep. of)¹ FMD is resolved. The event started 26.11.2010. with total number of 155 reported outbreaks, all caused with serotype O, is declared solved; the last one is reported in April 2011.

FMD distribution by serotypes 2010 – 2012



FMD, in the most central and eastern Asia countries, is endemic.

Brunei and Japan are the only countries in this region with the free FMD status where vaccination is not practiced.

There is the zone covering the provinces of Sabah and Sarawak in Malaysia which is designated as FMD free without vaccination.

In China, the main threat comes from affecting of O/Mya-98 strain and PanAsia strain. The O/Mya-98 strain mainly affects pigs, although

cattle and goat/sheep can also show clinical signs in some field cases. However, the PanAsia strain mainly affects cattle. Epidemiological analysis indicates that animal movements associated with trade are the main factors for the spread of the FMD and for transmission between provinces in China. Both Mya-98 and PanAsia strains of FMD sequences from PR China was a close relationship with those sequences from outbreaks in Southeast Asia nations⁶.

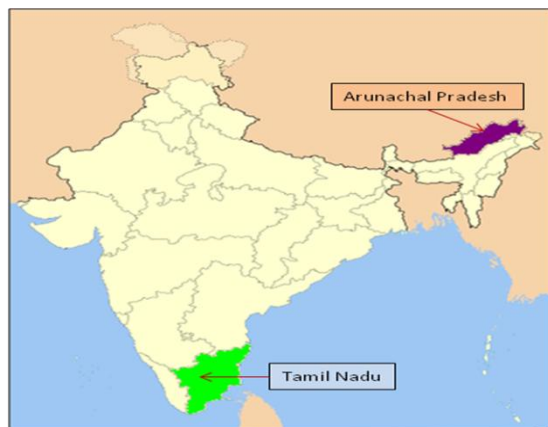
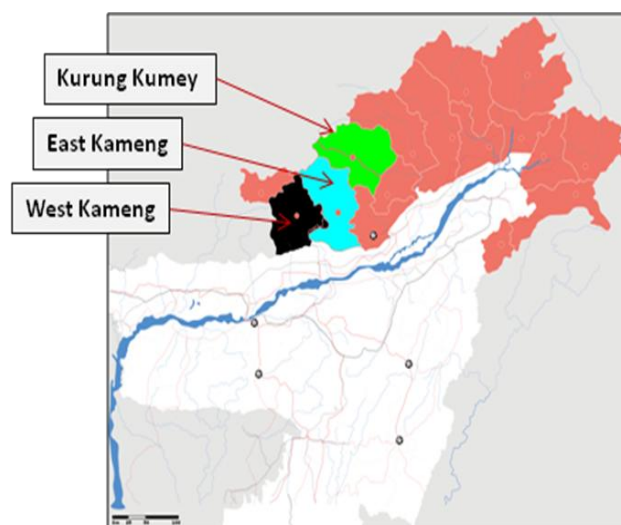
COUNTRY/6 MONTHS REPORTING TO OIE	FMD HISTORY (past 2 years)/NUMBER OF OUTBREAKS	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
CAMBODIA, 2011	2011 – NOT TYPED (94) ¹	JUL 2012/NOT TYPED ⁹	DISEASE PRESENT
CHINA (PEOPLE'S REP. OF), 2011, ½ 2012	2011 – O(4) ¹	SEPT 2012/O ¹	DISEASE PRESENT-DOMESTIC, NOT REPORTED-WILD
CHINA (HONG KONG, SAR), 2011	2011 – O(3) ^{1,5}	NOV 2011/O ¹	DISEASE PRESENT-DOMESTIC, NOT REPORTED-WILD
CHINA (TAIWAN PROVINCE), NO OIE DATA	2011 - 2011 – O(6) ⁵ 2012 – O ⁵	NOT AVAILABLE	UNKNOWN
JAPAN, 2011	2011, 2012 - NO REPORTED OUTBREAKS ¹	JULY 2010/O ^{1,5}	FREE WITHOUT VACCINATION
KOREA (DPR), 2011	2011 – O(114) ^{1,5}	MARCH 2011/O ¹	½ 2011-PRESENT-DOMESTIC, NOT REPORTED-WILD, 2/2011 – NOT REPORTED
KOREA (REP. OF), 2011	2011 – O(86) ^{1,5}	APR 2011/O ¹	½ 2011-PRESENT-DOMESTIC, NOT REPORTED-WILD, 2/2011 – NOT REPORTED
LAOS PDR, NO SUBM. REPORTS	2011, 2012 - NO REPORTED OUTBREAKS ¹	OCT 2010/O ¹	UNKNOWN
MALAYSIA,	2011 – O, A ^{1,5}	JUN 2012/O ¹	FMD FREE ZONE WHERE

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2011, ½ 2012	2012 – O, A ^{1,5}		VACCINATION IS NOT PRACTISED
MONGOLIA, 2011	2011, 2012 - NO REPORTED OUTBREAKS ¹	OCT 2010/O ¹	½ 2011 – LIMITED ON ONE OR MORE ZONES, 2/2011 -NOT REPORTED
MYANMAR, 2011	2011 – O(7) ¹	FEB2012/O ⁹	DISEASE PRESENT
RUSSIAN FEDERATION, 2011	2011 – O(4) ¹ 2012 – O(2) ¹	MAR 2012/O ¹	½ 2011 – NOT REPORTED, 2/2011 - DISEASE PRESENT
THAILAND, 2011, ½ 2012	2011 – O, A(31) ^{1,5} 2012 – O, A(12) ^{1,5}	JUN 2012/O ¹	DISEASE PRESENT- DOMESTIC, NOT REPORTED-WILD
VIET NAM, 2011	2011 – O(449) ^{1,5} 2012 – O ⁵	MAR 2012/O ⁵	DISEASE PRESENT

II POOL 2 SOUTH ASIA

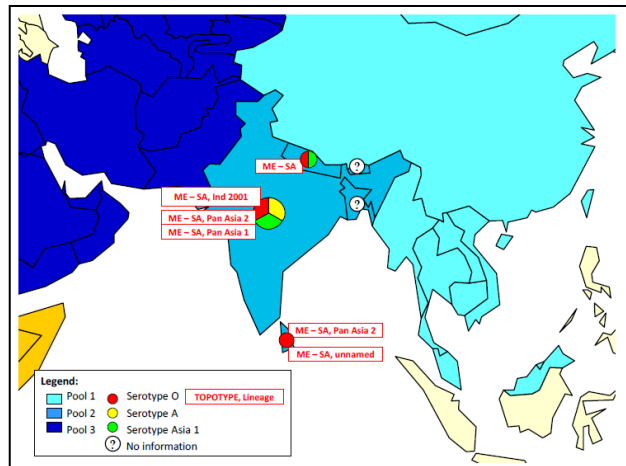
India. The death of six mithuns (*Bos frontalis*) due to outbreak of foot-and-mouth disease (FMD) at Pungrung and Layang villages in Arunachal Pradesh's Kurung Kumey district (northeastern Indian state of Arunachal Pradesh) in the last few weeks is reported. A ring vaccination was carried out to create an immune belt within the controlled zone. Outbreak of FMD is also reported from other parts of Kurung-Kumey, East and West Kameng Districts³.



animals of this village a week ago³

It is reported that 20 cows owned by villagers in Karisalpatti in Rediyarchathiran union in Dindigul district (the south of Tamil Nadu, India) have succumbed to a suspected outbreak of foot and mouth disease. Dindigul district has about 30,000 cattle owned by its people and they are vaccinated free of cost twice a year by the department of animal husbandry. This is in spite of the government having administered vaccines to the

FMD distribution by serotypes 2010 – 2012



South Asia is known to be FMD endemic area but very limited data on serotypes is available.

The PD-FMD at Mukteswar (FMD Reference laboratory for South Asia) is active in this region and is requested to provide information on FMD circulation that will assist improved understanding of virus circulation.

COUNTRY	FMD HISTORY (past 2 years)/NUMBER OF OUTBREAKS	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
BANGLADESH, 2011	2011 – O, A, Asia1 ⁶	NOT AVAILABLE	½ 2011 DISEASE PRESENT, 2/2011- LIMITED TO ONE OR MORE ZONES-DOM, NOT REPORTED IN THIS PERIOD-WILD
BHUTAN, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	MAY 2010/NOT TYPED ¹	DISEASE PRESENT
INDIA, 2011	2011 – O, A, Asia1 ¹	SEP 2012/NOT TYPED ³	LIMITED TO ONE OR MORE ZONES
NEPAL, 2011	2011 – O, A, Asia1 (72) ^{1,6}	NOV 2011/NOT TYPED ¹	DISEASE PRESENT
SRI LANKA, 2011	2011 – O(60) ^{1,5}	JUN 2011/O ¹	½ 2011 - DISEASE PRESENT-DOMESTIC, NOT REPORTED-WILD ANIMALS, 2/2011 – NOT REPORTED

POOL 3 WEST EURASIA & MIDDLE EAST

Turkey, the epidemic of **Asia-1** (Asia-1 Sindh-08) which was wide spread in Anatolia in the first half of the year is declining; since late 2011 Asia-1 was the predominant serotype but since July 2012, number of outbreaks have been gradually declined: a few outbreaks have been detected, 6 and 4 in August and September respectively.

Serotype Asia-1 was detected in one sample collected from wild boar hunted in Anatolia (Gümüşhane, Merkez, Hasköy).

Outbreaks due to the **serotype A** of FMDV are limited in the inner Anatolia and middle of black sea regions. Three A sublineages have been detected in 2012, A Iran 05/SIS10, A Iran 05/HER10 and A Iran 05/USK11. The type A Iran 05 HER-10 incursion detected in 2012, has not spread at the moment and is limited to one outbreak.

O Panasia II/FAR09 lineage has caused recent type O outbreaks. Although sublineage of PanAsiall/FAR09 incursion is a new for Turkish livestock, spread appears limited.

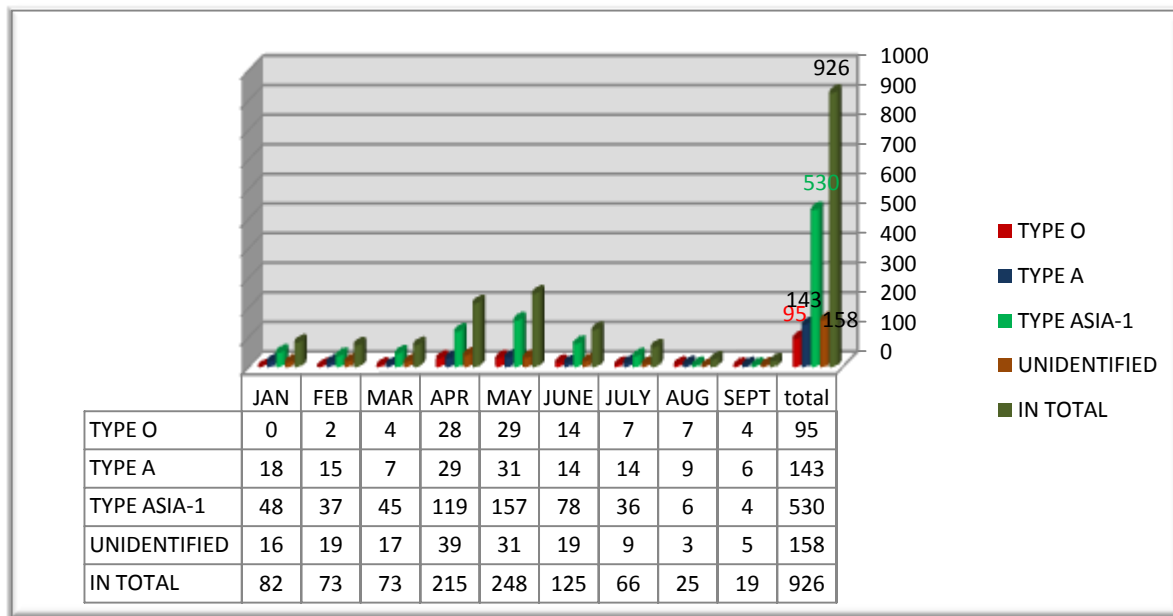


Fig.1. Distribution of outbreaks by month

TYPE A				TYPE O		Asia1	TOTAL
USK-11	AMS-12	SIS-10	HER-10	BAL-11	FAR-09	SINDH-08	
14	6	29	1	2	30	58	140

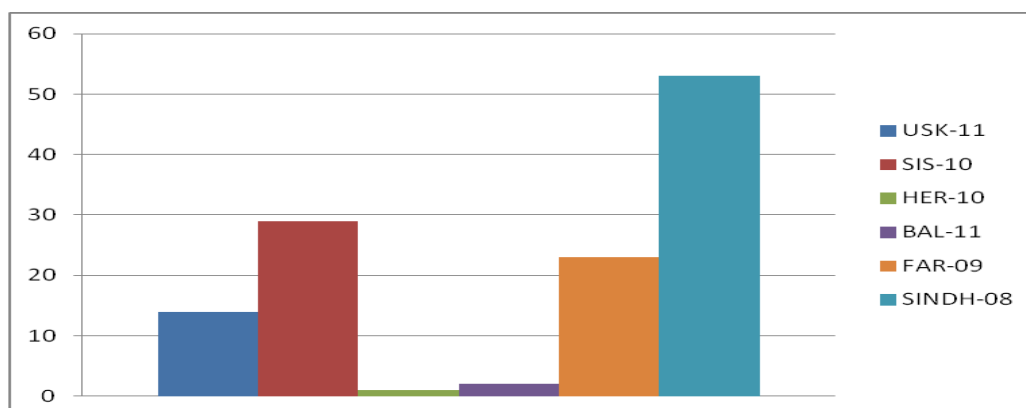
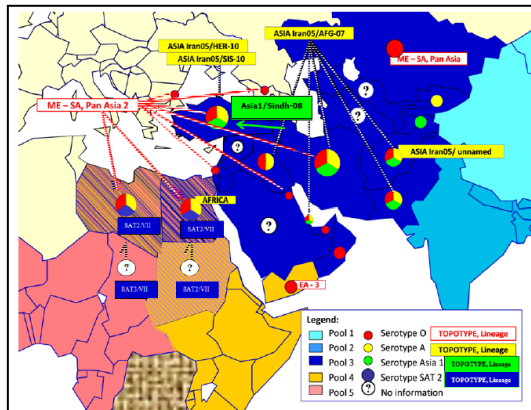


Table 1. genetic characterization of FMD Viruses in Turkey in 2012 (Up to October) (Şap Institute)

Available vaccine matching results indicates that vaccine strains used in Turkey currently match with circulated field isolates.

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FMD distribution by serotypes 2010 – 2012



In Transcaucasus region no FMD outbreaks or suspicious cases have been reported in this period. Post spring 2012 vaccination sero surveys are completed.

COUNTRY	FMD HISTORY (past 2 years)/NUMBER OF OUTBREAKS	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
AFGHANISTAN, 2011	2011 – O, A, Asia1 ^{1,5}	DEC 2011 ¹	DISEASE PRESENT
ARMENIA, 2011 MONTHLY REPORTS REGULARLY SUBMITTED TO EUFMD	2011, 2012 – NO REPORTED OUTBREAKS ¹	NOT AVAILABLE	NOT REPORTED IN THIS PERIOD
AZERBAIJAN, 2011 MONTHLY REPORTS REGULARLY SUBMITTED TO EUFMD	2011, 2012 – NO REPORTED OUTBREAKS ¹	JUN 2001 ¹	NOT REPORTED IN THIS PERIOD
BAHRAIN, 2011	2011 – O, A, Asia1 ⁵ 2012 – O ⁵	MAR 2012/O ⁵	LIMITED TO ONE OR MORE ZONES
BULGARIA, 2011, ½ 2012	2011 – O ^{1,5}	JUN 2011/O ¹	½ 2011 – DISEASE PRESENT, 2/2011, 2012 - NOT REPORTED IN THIS PERIOD
EGYPT, 2011, ½ 2012 MONTHLY REPORTS REGULARLY SUBMITTED TO EUFMD	2011 – A, O ^{1,5} 2012 – SAT2 ^{1,5}	JUN 2012/SAT2 ¹	2011 – NOT REPORTED, 2012 - DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
GEORGIA, 2011 MONTHLY REPORTS REGULARLY SUBMITTED TO EUFMD	2011, 2012 – NO REPORTED OUTBREAKS ¹	2002 ¹	NOT REPORTED IN THIS PERIOD
IRAN, 2011	2011, 2012 – O, A, Asia1 ⁵	JUN 2012/Asia1 ⁵	DISEASE PRESENT
IRAQ, 2011	2011 – O,A (280) ¹	DEC 2011 ¹	DISEASE PRESENT
ISRAEL, 2011	2011 – O (21) ¹ 2012 – O ⁵	MAR 2012/O ⁵	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
JORDAN, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	2006 ¹	NOT REPORTED IN THIS PERIOD
KAZAKHSTAN, 2011	2011 – O, A ¹	FEB 2012/O ⁵	DISEASE PRESENT

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	2012 – O, A ⁵		
KUWAIT, 2011	2011(3), 2012 – O ⁵	FEB 2012/O ⁵	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
KYRGYZSTAN, 2011	2011 – O, A (66) ¹	NOV 2011/O, A ¹	LIMITED TO ONE OR MORE ZONES- DOMESTIC, NOT REPORTED IN WILD ANIMALS
LEBANON, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	03/2010 ¹	NOT REPORTED IN THIS PERIOD
LIBYA, NO SUBM. REPORTS	2011 – O ⁵ 2012 – O, SAT2 ⁵	APR 2012 ^{1,5}	DISEASE PRESENT
OMAN, 2011	2011 – 259 OUTBREAKS ¹	DEC 2011 ¹	DISEASE PRESENT
PAKISTAN, 2011	2011 – Asia1, O 2012 – A, Asia1 ⁵	JAN 2012/Asia1, A ⁵	LIMITED TO ONE OR MORE ZONES
AUTONOMOUS TERRITORIES PALESTINE, 2011	2011 – O, A, Asia1 ¹ 2012 – SAT2 ^{1,5}	APR 2012/SAT2 ⁵	LIMITED TO ONE OR MORE ZONES- DOMESTIC, NOT REPORTED IN WILD ANIMALS
QATAR, 2011	NO DATA AVAILABLE		½ 2011 – NOT REPORTED, 2/2011 DISEASE PRESENT
SAUDI ARABIA, 2011	2012 – O ⁵	JUL 2012/O ⁵	DISEASE PRESENT- DOMESTIC, CONFIRMED, NO CLIN- WILD ANIMALS
SYRIAN ARAB REPUBLIC, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	03/2002 ¹	NOT REPORTED IN THIS PERIOD
TAJIKISTAN, 2011	2011 – Asia1 ¹	NOV 2011/Asia1 ¹	½ 2011 – NOT REPORTED, 2/2011 - DISEASE PRESENT
TURKEY, 2011, ½ 2012 MONTHLY REPORTS REGULARLY SUBMITTED TO EUFMD	2011 – Asia1, A, O ⁵ (1045) ¹ 2012 – Asia1, A ⁵ , O ¹ (780) ¹	SEP 2012/O, A, Asia1 ¹¹	DISEASE PRESENT- DOMESTIC, CONFIRMED, NO CLIN- WILD ANIMALS
TURKMENISTAN NO SUBM. REPORTS	NO DATA AVAILABLE		UNKNOWN
UZBEKISTAN NO SUBM. REPORTS	NO DATA AVAILABLE		UNKNOWN

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POOL 4

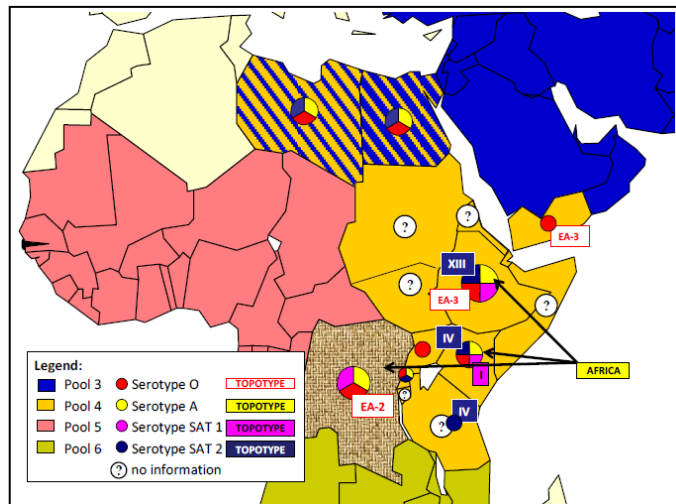
EASTERN AFRICA

Pool 4, Kenya², SAT2 outbreak in Rongai district, location Lengenet. Vaccinations are usually done in cattle twice a year using the trivalent vaccine (serotype O, SAT1 & SAT2) coordinated by the district veterinary officer. This is an area of importance for livestock production, especially small holder dairy. O and SAT2 outbreaks have occurred in the Rift Valley districts in most months of 2012 as indicated by the data for Nakuru County:

MONTH	SEROTYPE	DISTRICT
January 2012	O	Naivasha
February 2012	O, SAT 2	Subukia, Subukia
March 2012	O, SAT 2	Naivasha, Njoro
April 2012	O, SAT 2	Naivasha, Nakuru North
May - August 2012	O	Nakuru North, Naivasha, Gilgil Rongai, Naivasha, Nakuru Central Naivasha
September 2012	SAT2	Rongai

Table 1. FMD outbreaks in Nakuru County in 2012 (Source: Embakasi FMD lab test results)

FMD distribution by serotypes 2010 – 2012



East Africa is known to be FMD endemic area but with limited available data.

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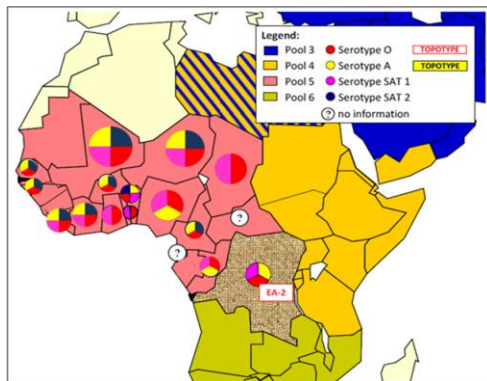
COUNTRY	FMD HISTORY (past 2 years)/NUMBER OF OUTBREAKS	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
BURUNDI, 2011	2011 – O, A, SAT1, SAT2 ⁷ (4)	2011 ⁷	UNKNOWN
COMOROS, 2011	2011 - DISEASE SUSPECTED BUT NOT CONFIRMED ¹	2010 ¹	SUSPECTED NOT CONFIRMED
CONGO D. R. , 2011	2011, 2012 O, A, SAT1 ⁷	2011/2012 ⁷ , NO PRECISE DATA	LIMITED TO ONE OR MORE ZONES
DJIBOUTI, 2011	2011 – ABSENT ¹	NOT AVAILABLE	NOT REPORTED IN THIS PERIOD
EGYPT , 2011, ½ 2012	2011 – A, O ^{1,5} 2012 – SAT2 ^{1,5}	JUN 2012/SAT2 ¹	2011 – NOT REPORTED, 2012 - DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
ERITREA, NO SUBM. REPORTS	2011 – O ⁵	NOT AVAILABLE	UNKNOWN
ETHIOPIA, 2011	2011 – A, SAT1, O ^{5,7}	2011 ⁵	DISEASE PRESENT
KENYA, 2011	2011 – O, SAT1, SAT2 ^{1,5} (60)	SEP 2012/SAT2 ²	DISEASE PRESENT-DOMESTIC, LIMITED TO ONE OR MORE ZONES-WILD ANIMALS
LIBYA , NO SUBM. REPORTS	2011 – O ⁵ 2012 – O, SAT2 ⁵ (37) ⁷	APR 2012 ^{1,5}	DISEASE PRESENT
RWANDA, NO SUBM. REPORTS	2011, 2012 – ABSENT ⁷	2010 ¹	UNKNOWN
SOMALIA, 2011	2011 – 9 OUTBREAKS ¹	2011 ¹	DISEASE PRESENT
NORTH SUDAN, 2011	2011 – A, O ¹ (9)	DEC 2011 ¹	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
SOUTH SUDAN, 2011	2011, 2012 – O, SAT1, SAT2, A ⁷	2011 ⁷	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
TANZANIA, 2011	2011 – SAT1(buffalo), SAT2 (cattle), O ⁷ , SAT3 ^{1,5} (13)	DEC 2011/SAT2 ¹	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
UGANDA, 2011	2011 – O, A, SAT1, SAT2, SAT3 ^{7,2,1} (20)	SEP 2011/O ¹	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
YEMEN, NO SUBM. REPORTS	NO AVAILABLE DATA		

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POOL 5 WEST/CENTRAL AFRICA

In September, 17-24, Laboratory training course on Foot & mouth disease diagnosis was held in Accra Veterinary Laboratory, to improve basic FMD laboratory services needed to establish the true status of the disease in countries in this region. Most of the participating laboratories previously lacked the capacities to diagnosis FMD, but following the course will be provided with ELISA kits for FMD typing which should result in local ability to detect and type FMD virus from suspected outbreaks. FMD samples were brought from Nigeria, Cameroon and Ghana for testing during the practice. Serotype O was detected from the Ghana samples, while serotype SAT2 from both the Nigeria and Cameroon samples.

FMD distribution by serotypes 2010 – 2012



Foot and mouth disease is endemic in West Africa. Foot and mouth disease is endemic in West Africa. In Gabon, Sierra Leone, Mauritania, Guinea, Guinea Biss. FMD has not been reported at least in the last 3 years.

COUNTRY	FMD HISTORY (past 2 years)/NUMBER OF OUTBREAKS	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
BENIN, 2011	2011 – A, O, SAT1, SAT2 ^{4,1} (59)	DEC 2011/O, A, SAT1, SAT2 ¹	DISEASE PRESENT
BURKINA FASO, 2011	2011, 2012 – O, A, SAT2 ⁴	NO PRECISE DATA, DEC 2011 ¹	DISEASE PRESENT
CAMEROON, 2011	2011 – O, A, SAT2 ⁴ (35) ¹ 2012 – 12 OUTBREAKS ⁴	2012 ⁴	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
CAPE VERDE , NO SUBM. REPORTS	NO DATA AVAILABLE		
CENTRAL AFR. REP. 2011	NO DATA AVAILABLE		DISEASE PRESENT
CHAD, NO SUBM. REPORTS	2011, 2012 – A, SAT1 ⁴	2011/2012 ⁴ , NO PRECISE DATA	UNKNOWN
CONGO D. R. , 2011	2011, 2012 O, A, SAT1 ⁴	2011/2012 ⁴ , NO PRECISE DATA	LIMITED TO ONE OR MORE ZONES
CONGO R., NO SUBM. REPORTS	NO DATA AVAILABLE		

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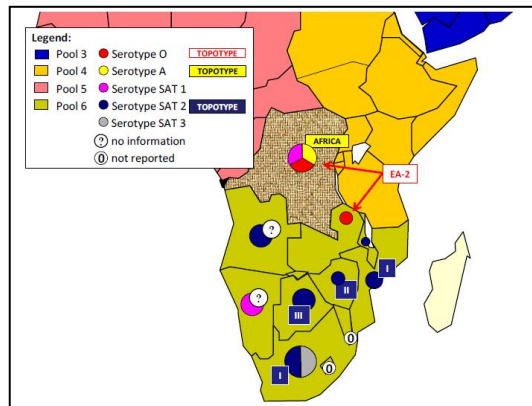
COTE D'IVOIRE, 2011	2011 – SAT1, A ¹ O, SAT2 ⁴	2011 ⁴	LIMITED TO ONE OR MORE ZONES
EQUATORIAL GUINEA, 2011	NO DATA AVAILABLE		DISEASE SUSPECTED, NOT CONFIRMED
GABON, 2011	2011 – ABSENT ¹	NO IN 2006-2012 PERIOD ¹	NEVER REPORTED
GAMBIA, NO SUBM. REPORTS	2011, 2012 – 1 OUTBREAK/O, A, SAT2 ⁹	2011/2012 ⁹ , NO PRECISE DATA	DISEASE PRESENT
GHANA, 2011	2011 – O, A, SAT1, SAT2 ⁴ (57) ¹	DEC 2011 ¹	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
GUINEA BISS., 2011, ½ 2012	2011, 2012 – ABSENT ¹	NO IN 2009-2012 PERIOD ¹	NOT REPORTED IN THIS PERIOD
GUINEA, 2011, ½ 2012	2011, 2012 – ABSENT ¹	NO IN 2007-2012 PERIOD ¹	NOT REPORTED IN THIS PERIOD
LIBERIA, NO SUBM. REPORTS	2011, 2012 – A, SAT2 ⁴	2011/2012 ⁴ , NO PRECISE DATA	UNKNOWN
MALI, 2011	2011/2012 – O, A, SAT1, SAT2 ⁴ (3) ¹	2011/2012 ⁴ , NO PRECISE DATA	LIMITED TO ONE OR MORE ZONES
MAURITANIA, 2011	2011, 2012 – ABSENT ¹	NO IN 2007-2012 PERIOD ¹	NOT REPORTED IN THIS PERIOD
NIGER, 2011	2011/2012 – O, A, SAT1, SAT2 ⁴ (45) ¹	NO PRECISE DATA, OCT 2011 ¹	LIMITED TO ONE OR MORE ZONES – DOMESTIC, SUSPECTED, NOT CONFIRMED – WILD ANIMALS
NIGERIA, 2011, ½ 2012	2011/2012 – O, A, SAT1 ⁴ (15) ¹	OCT 2011 ¹	DISEASE PRESENT
SAO TOME PRINCIPE, NO SUBM. REPORTS	NO DATA AVAILABLE		
SENEGAL, 2011	2011/2012 – O, A, SAT2 ⁴ (12) ¹	NO PRECISE DATA, DEC 2011 ¹	DISEASE PRESENT IN DOMESTIC, NOT REPORTED IN WILD ANIMALS
SIERRA LEONE, 2011	2011, 2012 – ABSENT ¹	OCT 1958 ¹	NOT REPORTED IN THIS PERIOD
TOGO, 2011	2011, 2012 – O, SAT1 ^{1,4} (79) ¹	FEB 2012 ⁴	DISEASE PRESENT

P O O L 6

S O U T H E R N A F R I C A

Botswana, SAT2 outbreak was detected after poor vaccination coverage following flooding of the area, which made some animals inaccessible for vaccination. Reoccurrence of FMD is suspected to be due to contact with cattle and buffaloes which crossed into the livestock area. The extensive surveillance so far has revealed that cattle affected are only within the subzone 2d. As an FMD control zone, no movement of cloven-hoofed animals and their derived fresh products and other FMD risk material has been allowed out of the zone, therefore the outbreak does not affect the status of FMD free zones¹.

In South Africa, it is reported that the source of the outbreaks is contact with wild species. The outbreaks are within the protection zone of South Africa's FMD control zone. Cattle in this zone are vaccinated against FMD. Vaccination for FMD is prohibited in the rest of South Africa¹.



FMD distribution by serotypes 2011- 2012

Swaziland and Lesotho are the countries free from FMD in which vaccination is not practiced. Also, there is the zone in both, Botswana and Namibia, FMD free where vaccination is not practiced, since 2010 and 1997 respectively.

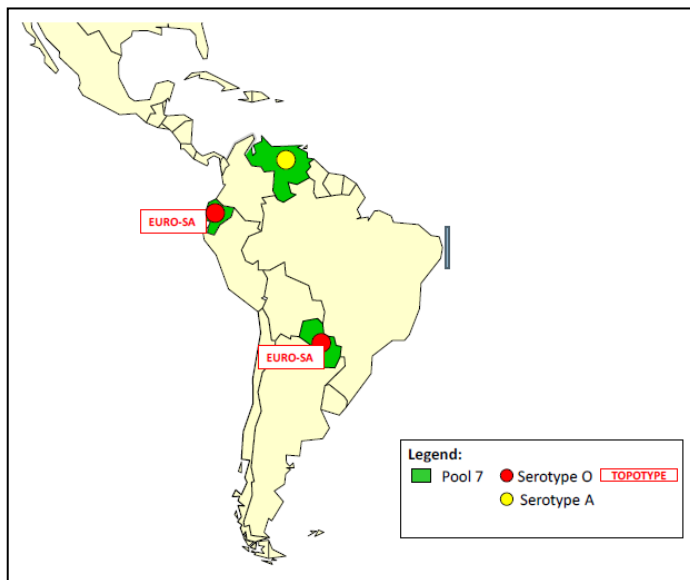
September, 2012

COUNTRY	FMD HISTORY (past 2 years)/NUMBER OF OUTBREAKS	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
ANGOLA, NO SUBM. REPORTS	NO REPORTED OUTBREAKS	DEC. 2010/ SAT2 ¹	UNKNOWN
BOTSWANA, 2011	2011 – SAT2 ⁵ SAT2(4) ¹ 2012 – SAT2(1) ¹	MAY 2012/ SAT2 ¹	FMD FREE ZONE WHERE VACCINATION IS NOT PRACTISED
CONGO D. R. , 2011	2011, 2012 O, A, SAT1 ⁴	2011/2012 ⁹ , NO PRECISE DATA	LIMITED TO ONE OR MORE ZONES
MALAWI, 2011	2011 – SAT2(2) ¹	OCT 2011 ¹	DISEASE PRESENT
MOZAMBIQUE, 2011	2011 – SAT2(1) ¹	JUN 2011/SAT2 ¹	DISEASE PRESENT
NAMIBIA, 2011	2011 – SAT1(4) ¹ 2012 – SAT1(1) ¹	JAN 2012/SAT1 ¹	FMD FREE ZONE WHERE VACCINATION IS NOT PRACTISED
SOUTH AFRICA, 2011	2011 – SAT1 (46) ¹ SAT2(2) ¹ 2012 – SAT2(7) ¹	APR 2012/SAT2 ¹	DISEASE PRESENT- DOMESTIC, CONFIRMED WITH NO CLIN.-WILD
ZAMBIA, 2011	2012 – SAT2(1) ¹	JAN 2012/SAT2 ¹	DISEASE PRESENT
ZIMBABWE, 2011	2011 – SAT2(10) ¹	APR 2011/SAT2 ¹	DISEASE PRESENT

POOL 7

SOUTH AMERICA

FMD distribution by serotypes 2010 – 2012



The most of South America countries are FMD free with (Uruguay)/without (Chile, Guyana) vaccination or with free zones with/without vaccination. Small areas of the continent are considered as endemic but clinical cases are rare. Outbreaks in the free area are considered as emergencies and reported to OIE and PANAFOTSA

COUNTRY	OUTBREAK HISTORY	LAST OUTBREAK REPORTED/TYPE	COUNTRY FMD STATUS ¹
ECUADOR, 2011, ½ 2012	2011 – O(5) ¹	AUG 2011/O	2011 – DISEASE PRESENT, 2012 – NOT REPORTED
PARAGUAY, 2011	2011 – O(2) ¹	DEC 2011/O	½ 2011 – NOT REPORTED, 2/2011 - LIMITED TO ONE OR MORE ZONES
VENEZUELA, NO SUBM. REPORTS	2011 – O(1) ⁸ A(1) ⁸	2011/O, A	UNKNOWN

The key to the superscripts is below:

1. WAHID Interface – OIE World Animal Health Information Database
<http://web.oie.int/wahis/public.php?page=home>
2. Reports from FAO/EuFMD projects and field officers
3. International Society for Infectious diseases, <http://www.promedmail.org>
4. FAO/EuFMD supported FMD networks (RESOLAB-FMD West Africa)
5. World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD), www.wrlfmd.org
6. Conference on Scientific Developments and Technical Challenges in the Progressive Control of FMD in South Asia, New Delhi, India, 13-15 February 2012.
7. FAO/EuFMD supported FMD networks (EARLN-FMD Eastern Africa)
8. SENASA, Argentina
9. SEACFMD
10. 84th Session of the Executive Committee of the EuFMD Commission
11. Report for FMD in Turkey, 01-21 September 2012.