IAH Pirbright WRLFMD Report
EuFMD Executive 27th September 2010

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Appendix 7

2009

• ~1000 samples
• ~500 positive (523 in period 2006-2008)
• ~483 sequences (330 in 2008)
• Predominantly O and A serotype
  - A-Iran-05 lineage 30%
  - O-PanAsia 2 44%
April-June 2010

<table>
<thead>
<tr>
<th>Country</th>
<th>No. of samples</th>
<th>Virus isolates in cell culture/ELISA</th>
<th>FMD virus serotype</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFGHANISTAN**</td>
<td>60</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ITALY</td>
<td>167</td>
<td>66 8</td>
<td>-</td>
</tr>
<tr>
<td>KENYA</td>
<td>132</td>
<td>0 10</td>
<td>-</td>
</tr>
<tr>
<td>NEPAL</td>
<td>8</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>PAKISTAN</td>
<td>24</td>
<td>15 4</td>
<td>-</td>
</tr>
<tr>
<td>QATAR</td>
<td>17</td>
<td>17</td>
<td>-</td>
</tr>
<tr>
<td>SOUTH KOREA</td>
<td>4</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>TURKEY**</td>
<td>8</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>VIET N AM</td>
<td>7</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>695</td>
<td>128 13 20 78 1</td>
<td>123 102 355 189 17</td>
</tr>
</tbody>
</table>

**All samples from Afghanistan were negative in RIA test for CIE reactions.
***Type O samples from Turkey were selected for full-length genome sequencing.

Samples to WRLFMD 2009-2010

FMD Reports in 2010

ASIA

P.R. China:
FMDV O was detected in pigs in a number of provinces.
2 outbreaks of FMDV A occurred in January.

Taiwan, ROC:
FMDV O occurred in pigs on Penghu Island.

Hong Kong SAR:
FMDV O was isolated from pigs. These viruses belonged to the SEA type (Mya-98 lineage) which is currently widely circulating in Southeast Asia.

FMD Reports in 2010

AFRICA

Ethiopia: O and SAT 2
Senegal: FMDV SAT 2
Kenya: SAT 1 and SAT 2
Nigeria: O and A
Tanzania: O, A and SAT 2
Zimbabwe: SAT 2
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FMD Reports in 2010

SOUTH AMERICA

Ecuador

• Nine FMD type O virus strains were isolated from samples sent from various locations in Ecuador.

• These are the first samples we have received from this region.

• With assistance from Fanafossav we were able to compare the VP1 sequences to those from six virus isolates from Ecuador in 2009.

• All belonged to the EURO-SA genotype

Current situation in Turkey
Thanks to Naci Bulut

• 947 OUTBREAKS up to mid September 2010

• Serotypes:
  - Type O: 690
  - Type A: 101
  - PCR (+): 87
  - Untyped: 69

Distribution Of Outbreaks

Threats to the UK & Europe: PanAsia lineage 1999-2001

FMDV O in the Far East

Institute for Animal Health
Vaccine Recommendations (National & European antigen banks)

**HIGH PRIORITY**
- O Mixo
- O BPS or Campos
- A Iraq 67
- A Iraq 96
- A Korea
- A Korea 97 or A Jordan 97 or A Lebanon 97 or A Iraq 97 (or equivalent)
- A Korea 97 (or equivalent such as A Korea97/TA/BE)
- SAT 2 Saudi Arabia (or equivalent)
- SAT 2 South Africa
- SAT 2 Zimbabwe
- A15 Bangladesh related strain
- A Kenya
- A Iraq 97 Argentinian related strain
- SAT 2 Kenya
- SAT 2 Zimbabwe
- C Noviriki

**MEDIUM PRIORITY**
- A Argentina 01
- A Iran 96
- A Argentina
- A Iraq 97
- A Iraq 97 or A Iraq 96 or A Jordan 97 or A Lebanon 97 or A Iraq 97 (or equivalent)
- A Korea 97 (or equivalent such as A Korea97/TA/BE)
- SAT 1 South Africa
- SAT 2 Zimbabwe
- A15 Bangladesh related strain
- A Kenya
- A Iraq 97 Argentinian related strain
- SAT 2 Kenya
- SAT 2 Zimbabwe
- C Noviriki

**LOW PRIORITY**

Activities
- International Vaccine Bank Holders Network - secretariat
- Interlaboratory proficiency tests for virus detection and serology
- Training
  - OIE/FAO FMD Ref Labs Network
    - Interlaboratory vaccine matching ring trial
    - Meeting at Pirbright in October
    - Training with Saudi Arabia
    - Training with African countries now being progressed
      Activity in Nigeria and Tanzania
- Continued development of LFD pen side test with Svanova and IZS-Brescia and with Enigma (UK) for field PCR testing
- Smiths detection field PCR withdrawn
- New Laboratory underway

Combined FMD/SVD Proficiency Testing 2009
Seventy one laboratories from 68 countries were invited to take part in this study supported by the EC and the EuFMD. Of the 45 labs that agreed to participate, 26 were from EU member countries; 19 from Non-EU countries.
Results of this study were presented at the joint meeting of FMD/ SVD national reference laboratory's in Brussels, Belgium in January 2010 and will be incorporated into the Proceedings of the meeting.

Combined FMD/SVD Proficiency Testing 2010
- Invited 66 laboratories
- 55 participants
- Stil some on the waiting list

Significant Issues
- Increased workload
  - recruitment freeze
  - salary freeze
- QA accreditation
- HSE/Biosafety
- ITPS
- New building
  - Static reduced funding from defra
- Training concept with OIE - train the trainers run the scheme from Pirbright
  - Twinning and training courses need resource
  - Team and funds QA/Biosec and lab diag

Current and Future Issues
- Global control of FMD: Role for Pirbright?
- OIE/FAO FMD Reference Laboratory Network?
- Transport of Samples?
- Obtaining samples from Japan and China
  - Improved collaboration through network
- MOU with India for viruses?
- Ref labs handout: Pirbright PR
**Current and Future Issues**

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**Samples per Country**

- Resource limitation
- Large increase in samples
- Should we limit to 50 per year?
- OIE perspective?
- FAO perspective?
- WRL perspective: risk losing samples from these countries

**FMD Vaccine Market Authorisation**

- Link to VMD website provides the product information on ALL UK Marketing Authorisations (MAs) and those authorised by the European Medicines Agency (EMA) [http://www.vmd.gov.uk/ProductInformationDatabase/](http://www.vmd.gov.uk/ProductInformationDatabase/)
- Does not give products authorised in ALL member states – i.e. older National Authorisations or even more recent products that were authorised in some MSs but not in the UK.
- There is an ongoing project to bring ALL products authorised in the EU into one database, but this is not going to happen for sometime (Eudravigil).

**Reference Laboratories Handout**

- Institute for Animal Health (IAH) Reference Laboratories

**World Reference Laboratory for Foot-and-Mouth Disease**

- Improve quality of information for Pools, Regions, Countries, Governments, Industry, Animal Health Agencies, Farmers

**FMD Vaccine Market Authorisation**

- For FMD vaccines the only two products that are fully compliant with Directive 2001/82/EC are Merial’s Alfapur DOE and Alfapur AlSap authorised in the UK and Germany by Mutual Recognition (MR).
- The two products were renewed in 2008 and now will remain on the EU market indefinitely and will not be subject to any further renewals.
- Details on VMD website
- As the products have full MAs in the UE they can be used under the “cascade” by other MSs, hence antigen bank sales to a number of EU countries using the MAs registered in Germany and the UK.

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Cdilvac FMD DOE is now a Merial product. The product is registered in The Netherlands under an old National Authorisation (REG NL 8265).
No information on it being marketed in other MSs, but theoretically it could.

For Intervet's DCCILAV DOE manufactured in Germany it is unclear whether there is any existing authorisation for the product in the EU.

Thank you for your attention.