Symposium on Prevention and Control of Foot and Mouth Disease

Tokyo, 1 December 2011

Recent situation and prevention and control of FMD in Vietnam and SEACFMD

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Vietnam Department of Animal Health
Outline

- Structure of Vietnam Veterinary Service
- FMD status in Vietnam
- Disease control and prevention in Vietnam
- FMD status and SEACFMD campaign
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<table>
<thead>
<tr>
<th>Month</th>
<th>No. of outbreaks</th>
<th>No. of infected animals</th>
<th>No. of disposed animals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>buffaloes</td>
<td>cattle</td>
</tr>
<tr>
<td>Jan.</td>
<td>240</td>
<td>4135</td>
<td>2779</td>
</tr>
<tr>
<td>Feb.</td>
<td>262</td>
<td>2584</td>
<td>3779</td>
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<tr>
<td>Mar.</td>
<td>47</td>
<td>403</td>
<td>363</td>
</tr>
<tr>
<td>Apr.</td>
<td>0</td>
<td>0</td>
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<td>May</td>
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<td>Jun.</td>
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<td>Jul.</td>
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<td>Aug.</td>
<td>7</td>
<td>154</td>
<td>22</td>
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<td>Sep.</td>
<td>0</td>
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<tr>
<td>Oct.</td>
<td>1</td>
<td>3</td>
<td>13</td>
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<tr>
<td>Total</td>
<td>557</td>
<td>7279</td>
<td>6956</td>
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</tbody>
</table>
Temporal distribution of FMD outbreaks in 2011
Spatial distribution of FMD outbreaks, Jan-Oct, 2011 in Viet Nam

No significant epidemiological changes.
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FMD control and prevention activities (1)

- Programme Management, resources and funding – vaccines used

  - Regular meetings to review disease control activities;

  - National Programme for FMD Control, 2011-2015 has been approved by MARD, total budget: ~ USD 31 million:
    - ~ USD19.5 million for vaccines.
## FMD control and prevention activities (2)

### Vaccination

#### FMD Vaccine matching strain differentiation report

*WRLFMD, 27 Sep 2011*

<table>
<thead>
<tr>
<th>Report no:</th>
<th>Vaccine:</th>
<th>Field Isolate:</th>
<th>VNT</th>
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<tr>
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<td>O</td>
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<td>3039</td>
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<td></td>
<td></td>
<td>4625</td>
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<td></td>
<td></td>
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<td>Manisa</td>
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<td></td>
<td></td>
<td>O Taw98</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>O TNN 24/82</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>O Tur 5/09</td>
</tr>
<tr>
<td>O Vit 18/2010</td>
<td>Mean</td>
<td></td>
<td>0.76</td>
</tr>
<tr>
<td>O Vit 23/2010</td>
<td>Mean</td>
<td></td>
<td>0.70</td>
</tr>
</tbody>
</table>

$r_1 = \geq 0.3$. Suggests that there is a close relationship between field isolate and vaccine strain. A potent vaccine containing the vaccine strain is likely to confer protection.

$r_1 = < 0.3$. Suggests that the field isolate is so different from the vaccine strain that the vaccine is unlikely to protect.
FMD vaccinated zones (National Programme for FMD Control)
FMD control and prevention activities (3)

• Implementing the national plan for FMD Control
  - Bidding for vaccines;
  - Vaccine efficacy monitoring: Closely monitor the virus: in collaboration with WRL- UK (also vaccine matching; to send more viruses soon) and OIE RRL – Thailand;
FMD control and prevention activities (4)

• Public Awareness and Communications
  - Leaflets, booklets…

• Disease surveillance, diagnosis, reporting and control
  - Outbreak immediate reporting
  - Regular monthly reporting
  - Online-reporting through ARAHIS/WAHIS
  - The virus: Only serotype O of FMDV reported in 2011.
FMD control and prevention activities (5)

• Policy, legislation and standards to support disease control and zone establishment

- Vet Law - Draft 8th available; expected to submit to National Assembly for endorsement by the end of 2014; assistance from OIE received and appreciated.

- Veterinary Strategic Plan is being finalised and will be submitted soon.
FMD control and prevention activities (6)

• International co-ordination and support
  - SEACFMD campaign;
  - Animal movement study: In collaboration with ACIAR
  - FAO/ADB Traders meeting in HCMC;
FMD control and prevention activities (7)

• Regional research and technology transfer

  - Vietnam research collaboration (USDA-DAH): The project “Molecular Epidemiology, Surveillance and Predictive Tools for FMD Control in Vietnam” has just started for a 2-year period
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(Ronello C. Abila, Progress Report 2011)

Serotype O - ●
The most common; 3 topotypes
– SE Asia – endemic in the region
  • Myanmar 98
  • Cambodia 84
– Pan Asia – introduced in late 1990s; originally traced from India and spread to several countries
– Cathay – pig adapted, present in Vietnam 1997 to present; confirmed in Thailand and Malaysia in 2005
Serotype A - ●
- Present in Thailand (yearly outbreaks)
- 1\textsuperscript{st} reported in Malaysia in 2003 and in Vietnam in 2004
- Sporadic in Lao PDR (2003 and 2006/2007)

Serotype Asia 1 - ●
- Sporadic outbreaks in Myanmar and Vietnam
- Not seen in Thailand, Lao PDR, Malaysia and Cambodia since 2000
- Last seen in Myanmar in 2005 and Vietnam in 2007
## FMD serotypes in Southeast Asia

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<tbody>
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<td>Brunei, Indonesia, Singapore</td>
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<tr>
<td>Cambodia</td>
<td>O</td>
<td>O</td>
<td>O, A</td>
<td>O, A</td>
<td>O, A</td>
<td>???</td>
<td>O</td>
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<tr>
<td>Lao PDR</td>
<td>O</td>
<td>O</td>
<td>A</td>
<td>O, A</td>
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<tr>
<td>Myanmar</td>
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<td>O, Asia 1</td>
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</table>

Reference: SEACFMD Monthly Outbreak Report
2011 FMD outbreaks in SE Asia
The South East Asia and China Foot and Mouth Diseases (SEACFMD) Campaign

Brunei, China and Singapore joined in 2010
Approved by the OIE General Assembly in May 25, 2010, PARIS
Program Management

International Coordination

Public Awareness

Surveillance, Diagnosis and Control

Policy, Legislation, Zoning

Regional Research

Private Sector

Monitoring & Evaluation

SEAFMD Campaign
Programme Management

• **Resource and funding**
  – Funding from July 2011 to June 2016 under the STANDZ Initiative
    • Programme Funds
    • Small Grant Facility
  – Continuous contributions from members through their 10% add on to their OIE annual fees.

• **Collaboration with other projects**
  – ACIAR ULM in Cambodia and Lao PDR, FAO/ADB TADs Project in GMS

• **Revision of SEACFMD 2020 Roadmap**
Surveillance, Diagnosis & Control

• Regular Monthly Reporting
  – regularly follow up members to submit updated reports
  – summary tables and maps on the website

• On-line reporting through the WAHIS Regional Core in ASEAN (ARAHIS)

• Epidemiological analysis of regional database
Acknowledgments

- Ronello Abila, SEACFMD
- Colleagues at the Epidemiology Division, DAH
THANK YOU FOR YOUR ATTENTION!