“The hemispheric program for the eradication of foot and mouth disease - challenges and lessons learned”

OIE/FAO Global Conference on Foot and Mouth Disease.

The Way Towards Global Control
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Contents of this presentation

- Short review of the history
- Evolution of FMD
- National and regional control of FMD. Achievements.
- Confronting a new opportunity
- Towards a transparent and entailed integration among countries in the region
- The international standards for FMD and other challenges
- The role of the international organizations
- The map of a potential future!
In the beginning...!
Factors influencing the increase in production

- Natural grazing in exceptional prairies
- Export of dry/salted meat and leather
- Frozen and cold meat (Le Frigorifique, 1876)
- The identification for property. Traceability
- Genetic improvement (British, Continental and Bos Indicus)
## Actual production index

<table>
<thead>
<tr>
<th>Countries</th>
<th>Inhabitants</th>
<th>Cattle</th>
<th>Pigs</th>
<th>Sheep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>40,914,000</td>
<td>59,261,268</td>
<td>3,050,000</td>
<td>15,500,000</td>
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<tr>
<td>Paraguay</td>
<td>6,996,221</td>
<td>10,627,979</td>
<td>1,506,833</td>
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<tr>
<td>Bolivia</td>
<td>10,027,644</td>
<td>7,684,924</td>
<td>2,490,000</td>
<td>8,990,000</td>
</tr>
<tr>
<td>Peru</td>
<td>28,220,764</td>
<td>5,101,895</td>
<td>3,000,000</td>
<td>15,000,000</td>
</tr>
<tr>
<td>Brazil</td>
<td>189,985,135</td>
<td>207,157,000</td>
<td>34,064,000</td>
<td>15,588,000</td>
</tr>
<tr>
<td>Suriname</td>
<td>438,144</td>
<td>137,000</td>
<td>24,500</td>
<td>7,700</td>
</tr>
<tr>
<td>Chile</td>
<td>16,92,873</td>
<td>4,350,000</td>
<td>3,480,000</td>
<td>3,420,000</td>
</tr>
<tr>
<td>Uruguay</td>
<td>3,415,920</td>
<td>12,000,000</td>
<td>257,000</td>
<td>11,000,000</td>
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<tr>
<td>Colombia</td>
<td>44,700,517</td>
<td>26,000,000</td>
<td>1,800,000</td>
<td>3,400,000</td>
</tr>
<tr>
<td>Venezuela</td>
<td>28,384,132</td>
<td>16,700,000</td>
<td>5,654,968</td>
<td>820,000</td>
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<tr>
<td>Ecuador</td>
<td>14,233,123</td>
<td>5,102,631</td>
<td>1,677,499</td>
<td>1,157,013</td>
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<tr>
<td>Guyana</td>
<td>765,283</td>
<td>110,000</td>
<td>20,000</td>
<td>130,000</td>
</tr>
<tr>
<td>French Guiana</td>
<td>230,000</td>
<td>12,701</td>
<td>10,593</td>
<td>2,600</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>368,310,883</strong></td>
<td><strong>354,245,398</strong></td>
<td><strong>57,035,393</strong></td>
<td><strong>75,539,837</strong></td>
</tr>
</tbody>
</table>

Source: FAO and others. 2004-2008
First FMD registered occurrences in America

✓ Argentina, 1870
✓ USA, 1870

FMD Virus Types in the Americas

• A - 0 - C (European/American FMD topotypes)
<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>Last occurrence of FMD in USA.</td>
</tr>
<tr>
<td>1952</td>
<td>Last occurrence of FMD in Canada.</td>
</tr>
<tr>
<td>1954</td>
<td>Last occurrence of FMD in Mexico.</td>
</tr>
<tr>
<td>1968</td>
<td>Patagonia in Argentina as free zone.</td>
</tr>
<tr>
<td>1987</td>
<td>Last occurrence of FMD in Chile. Country freedom.</td>
</tr>
</tbody>
</table>

FMD significant events since 1929
Significant events of the 80’s (part 1)

✓ The recognition of the role of the production systems in the epidemiology of FMD
✓ The regionalization of the actions (Cuenca del Plata, MERCOSUR, ANDEAN)
✓ The role of the private sector
✓ The regional planning (PHEFA, GIEFA, others)
The OIE international zoo sanitary standards

- meat maturation (deboned meat)
- country/zone free with vaccination
- FMD Surveillance
- contention zone*

* (approved 2007)
FMD in year 2008
South America FMD Status

Bolivia: Type O. Last outbreak 2007.
Ecuador-Venezuela: Type O and A. Last outbreak 2008.

Source: OIE- Wahid Interface
<table>
<thead>
<tr>
<th>STATUS / COUNTRY</th>
<th>FREE WITHOUT VACCINATION</th>
<th>FREE WITH VACCINATION</th>
<th>INFECTED OR UNKNOWN</th>
<th>HIGH SURVEILLANCE ZONES</th>
<th>LAST OUTBREAKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Southern parallel 42 zone</td>
<td>Northern parallel 42 zone</td>
<td>-</td>
<td>Limits with Paraguay, Bolivia, Brazil</td>
<td>2006</td>
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<tr>
<td>Paraguay</td>
<td>-</td>
<td>YES</td>
<td>-</td>
<td>Limits with Argentina, Bolivia and Brazil</td>
<td>2003</td>
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<tr>
<td>Bolivia</td>
<td>Taona, Puno, Madre de Dios, Cuzco, Moquegua, Arequipa, Apurímac, Ayacucho, Ica, Huancavelica, Junín, San Martín, Amazonas, Loreto, Huánuco, Pasco y Ucayali</td>
<td>Oruro - Chiquitania</td>
<td>-</td>
<td>Limits with Argentina, Paraguay, Brazil</td>
<td>Type O 2007</td>
</tr>
<tr>
<td>Peru</td>
<td>Taona, Puno, Madre de Dios, Cuzco, Moquegua, Arequipa, Apurímac, Ayacucho, Ica, Huancavelica, Junín, San Martín, Amazonas, Loreto, Huánuco, Pasco y Ucayali</td>
<td>YES</td>
<td>-</td>
<td>-</td>
<td>2004</td>
</tr>
<tr>
<td>Brazil</td>
<td>State of Santa Catarina</td>
<td>Amazonas, middle northern part of the State of Pará, Roraima, Amapá, Amazonas, Loreto, Huánuco, Pasco y Ucayali</td>
<td>States of Acre along with two adjacent municipalities of Amazonas, middle northern part of the State of Pará, Roraima, Amapá, Amazonas, Loreto, Huánuco, Pasco y Ucayali</td>
<td>Limits with Argentina, Paraguay and Bolivia</td>
<td>2006</td>
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<tr>
<td>Suriname</td>
<td>YES</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Disease never occurred</td>
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<tr>
<td>Chile</td>
<td>YES</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1987</td>
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<tr>
<td>Uruguay</td>
<td>-</td>
<td>YES</td>
<td>-</td>
<td>-</td>
<td>2001</td>
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<tr>
<td>Colombia</td>
<td>Northwest of Choco - Archipiélago de San Andrés y Providencia</td>
<td>YES</td>
<td>-</td>
<td>-</td>
<td>2008</td>
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<tr>
<td>Venezuela</td>
<td>-</td>
<td>-</td>
<td>YES</td>
<td>-</td>
<td>Type O y A 2008</td>
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<tr>
<td>Ecuador</td>
<td>-</td>
<td>-</td>
<td>YES</td>
<td>-</td>
<td>Type O y A 2008</td>
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<td>-</td>
<td>YES</td>
<td>-</td>
<td>-</td>
<td>1978</td>
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<tr>
<td>French Guiana</td>
<td>YES</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
</tbody>
</table>
Evolution in the control of FMD in South America. Year 2009

Where we are?

✓ Scientific and technical
  • Rapid and precise diagnostic methods
  • Potent and pure vaccines
  • Knowledge on the epidemiology of FMD

✓ National veterinary services
  • Prevention and control programs
  • Better laboratory facilities
  • Well trained personnel
  • Early detection and contingency planning

✓ Coordination at regional level
  • The role of OPS/PAHO
  • The role of OIE FMD Reference laboratories and others.
  • The Regional planning (PHEFA, GIEFA, others).
  • The OIE Mission under CVP. A model?
Taking responsibility to create new opportunities...

- Availability of extensive regional production systems
- Increased and continuous world demand for food
- Science and technology in the control of diseases
- Regional organization (MERCOSUR, ANDEAN)
- International zoo sanitary standards (OIE)
in order to proceed towards a definite goal?

✓ Better knowledge of the epidemiological situation. (Clear identification of endemic areas in the region)
✓ Full adoption and implementation of the OIE standards
✓ Clear and achievable national and regional objectives
✓ Transparency and communication improvement
✓ Strong commitment of the private sector
✓ Supranational regulations for Common Markets (Common Animal Health Policy?)
The international standards

- Need for discussion on the application of the compartmentalization concept to FMD.

- Need for the full adoption of the OIE standards for FMD, particularly on diagnosis and vaccines.

- List of FMD free commodities with sound scientific basis.
international organizations

✓ Technical
  • Providing support and technical assistance to countries.
  • Primordial role of the OIE/FAO Reference laboratories and networks.
  • OIE/FAO/others, coordinating regional or sub regional actions under OIE standards.
✓ Normatives
  • OIE providing guidance on well based scientific standards adopted by all member countries.
✓ Financial
  • International and regional financial institution supporting programs (national/regional) with clear and achievable objectives, with strong compromise of the private sector and full transparency.
✓ Political
  • Common Animal Health Policy among countries (MERCOSUR, ANDEAN)
Do we have the potential for a successful future?

Three countries in the region as an example:

✓ **Chile**, free of FMD since 1987. Exporting its surpluses!!

✓ **Uruguay**, free with vaccination 2004, increased its exports from 170000T/200millUS$ in 2001 to 370000T/1200mill US$ in 2008. Meat and meat products are the 2\(^{nd}\) income from exports.

✓ **Paraguay**, country with a free zone with vaccination in 2006, increased its exports from U$S 148 million in 2000 (72.000 T) to U$S 800 million in 2008 (225.000 T). Meat and meat products are the 2\(^{nd}\) country income. Exports to 44 countries.
Clear identification of the remaining endemic/risk areas in the region

Cut of the epidemiological link among endemic and low risk areas (e.g. OIE action under CVP)

Clear and transparent communication among countries particularly if they are in the same economic circuit

Building capacity for early detection and quick contention (Lab. Diagnosis, surveillance, biosecurity and vaccine banks)

Strong involvement and participation of the private sector at local, national and regional level.

Developing binding relationships among countries (Supranational Common Animal Health Policy for FMD control and eradication)
Thank you