

Notes on Foot and Mouth Disease (FMD) in South Korea

Background

- South Korea notified the OIE on Nov 29, 2010 of the reoccurrence of FMD Serotype O in the east central portion of the country in swine. (similar to FMD serotype O in circulation in other countries in Southeast Asia)
- Last two outbreaks in South Korea
 - Jan 11, 2010 Serotype A
 - April 9, 2010 serotype O, reported to be controlled on June 7, 2010.
- Possible causes for the rapid spread before the movement control were put into place
 - Farmer meetings
 - Pregnancy checks and artificial insemination
 - Use of feed or animal transport vehicles without disinfection
 - Lack of good biosecurity on farms
- Early difficulties due to cold weather
- Species affected: swine, dairy and beef cattle, goat
- Control measures included:
 - slaughter of affected animals,
 - premises quarantines,
 - movement controls,
 - screening,
 - zoning,
 - disinfection of affected premises
 - all livestock markets were closed,
 - close to 175,000 personnel were mobilized and close to 1,500 checkpoints established in an attempt to control the spread of FMD.

- End of Dec, South Korea decided to vaccinate nationwide all 13 million swine and cattle
- On Jan 31 the first round of vaccinations was completed
- Jan 14, South Korea requested vaccines from the US. They did not request any further assistance. (US 2.5 million of the over 20 million used)
- As of May 13 the total number of cases is 153 (last case April 23 in swine)
- The country culled more than 3.47 million cows, pigs and other animals, incurring around 3 trillion won (US\$2.78 billion) in losses.
- Reports of animals being buried alive.
- Public statements indicate that mistakes may have been made in vaccinations (timing, dosage, or defective syringes)
- Korea will continue to vaccinate animals for the foreseeable future
- Korea is considering developing their own vaccine bank and reference laboratory. No concrete steps have been taken on these proposals yet.
- Recently there have been reported outbreaks of FMD including China, South Africa, Bulgaria, Libya, North Korea, Mongolia, Angola, Mozambique, Chinese Taipei (Taiwan), Zambia, Myanmar, Russia, Japan

Future action:

- South Korea plans to introduce a livestock permit system starting next year to better regulate the local agricultural sector.
- Places greater responsibility on individual farmers to prevent outbreaks and penalizing those failing to follow animal protection rules.
- 2012 - Large corporate farms should get permits (8,600 or 4.4% of livestock growers) and animal breeding and chick hatching farms
- 2015 - expanded to all small-scale farms raising cattle, pigs, chicken, ducks (81,000)
- Violators can lose their livestock permits, pay fines up to 30 million won, or face jail terms
- Farmers will also be required to take full responsibility for the hiring and decontamination of foreign laborers hired to take care of animals
- Unauthorized disposal of animal waste could result in immediate revoking of permits
- The farm ministry has been pushing for changes after many recent FMD and bird flu outbreaks have been blamed on farmers not doing their part to decontaminate themselves, employees and animals.
- In the future, both farmers and local governments will be required to play more of a role in handling animal disease outbreaks, he said, adding local governments will be required to pay 20 percent of compensation paid for animals culled with the rest to come from the central government.

NORTH KOREA

Background

- The DPRK notified OIE and FAO about FMD detections on February 7, 2011.
- At that time 135 affected premises (cattle, goat and swine).
- Total animal populations estimated at: 400,000 cattle, 2 mill swine, 2 mill goats and 100,000 sheep).

- No contingency plan is in place suitable to deal with a FMD outbreak
- No standard operating procedures
- Containment strategy not fully implemented
- Information management (domestic communication channels) difficult to manage
- No FMD Vaccine was available

Summary

- FMD spread rapidly
- Response unfocused and incomplete isolation of infected farms and premises
- DPRK agreed to send virus samples to U.S. for virus typing (with FAO support)
- No reason to believe that the virus in North Korea is different from the virus in South Korea
- FMD threatens to worsen an already fragile food supply situation in North Korea
- DPRK officials requested North Korean citizens consume less food

Requests from the CVO

- FAO provide vaccine for emergency use.
- FAO provide assistance for FMD vaccine production in North Korea.
- FAO provide assistance to enable domestic production of diagnostic reagents.

Proposed Emergency Action Plan

- Establish and protect FMD-free zones within North Korea.
- FMD response capacity building (epi and basic biosecurity)
- Implement a strategic vaccination campaign
- About \$890,000 needed to implement an emergency plan of this nature