Foot-and-Mouth Disease: USDA’s Efforts to Prepare for a Potential Outbreak Could Be Strengthened (GAO-19-103)
GAO Report: Foot-and-Mouth Disease

Report includes:

1) USDA’s response plan for an FMD outbreak
2) Challenges USDA would face in an FMD outbreak
3) USDA corrective actions to mitigate these challenges
Background

Why prepare for FMD?

• Economic impact would be serious: exports of all livestock products—worth $19B—would be halted

• FMD exists in Africa, Asia, Eastern Europe and South America

• U.S. is vulnerable- large size, mobility of livestock sector
11 Challenges

GAO identified 11 challenge areas:

1) Surveillance
   - e.g. no active surveillance, visible signs may not appear right away, wild animals could spread the disease

2) Diagnostic Capabilities
   - e.g. lack of validated population-level tests, resource shortages

3) Information Management
   - e.g. incompatible data systems at state and federal levels
11 Challenges, cont’d.

4) Animal Traceability
   • Insufficient use of ID numbers for premises and animals

5) Biosecurity
   • Not all premises have biosecurity measures in place

6) Depopulation &
7) Carcass Disposal
   • e.g. resources needed for feedlots with 50,000 cattle

Source: Dr. Pam Hullinger, Director of the California Animal Health and Food Safety Laboratory. | GAO-19-103
11 Challenges, cont’d.

8) Resources
• e.g. not enough incident responders, workforce to inspect vehicles and enforce stop movement orders

9) Communication and Coordination
• Fed’l, state & local gov’t, industry, etc

10) Appraisal and Compensation
• e.g. how much will USDA pay? What is fair market value in an outbreak?
11 Challenges, cont’d.- Vaccination

11) Vaccination

• More than 60 subtypes of FMD; Vx needs to match
• Immunity to one type does not protect against others

• Limited Supplies of Vaccine
  • North American FMD Vx Bank- 2.5M doses of several subtypes
FMD Vaccine Doses Needed to Protect Cattle and Swine in TX and IA Compared With Vaccine Bank Doses Available, 2018

11 Challenges, cont’d.- Vaccination

- Lack of Consensus on Vaccine Allocation
  - Who should get the vaccine?

- Timing and Logistics
  - 4-13 days for supply in bank; 3 months+ to produce more

- Scientific, Procedural, and Infrastructure Issues
  - e.g. no production capacity for FMD vaccine in U.S.
USDA Corrective Actions

To mitigate challenges, USDA has identified corrective actions through

• preparedness exercises

• surveys of agency staff and others

• lessons learned from outbreaks of other diseases
Corrective Actions Taken- examples

✓ APHIS piloted a project to test active surveillance for swine, to be used during an outbreak

✓ APHIS & IA State U. offered training on enhanced biosecurity

✓ USDA authorized noninfectious form of FMD virus to be on the mainland, enabling Vx to be produced in the U.S. once permits and infrastructure are in place
Corrective Actions Not Yet Taken- examples

- Finalize protocols for surveillance during an FMD outbreak
- Validate a bulk-tank milk test for dairy cattle and an oral fluid test for swine
- Acquire access to additional vaccine
- Work with states to develop procedures for implementing a vaccine strategy
To improve FMD preparedness, APHIS should follow its procedures to

1) prioritize corrective actions

2) monitor progress and track completion of corrective actions
APHIS is taking actions in response to GAO’s recommendations
2018 Farm Bill

2018 Farm Bill- $150M over 5 years for
1) NAHLN labs

2) Preparedness- grants to states, tribal entities, etc

3) Vaccine and Countermeasures Bank
   • USDA is taking 1st steps in acquisition phase
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