Outbreak Terminology: Phases, Zones and Premises

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Thanks for the slides

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Consequences of FMD Spread vs. Stamping Out Depend on the Phase and Type of an FMD Outbreak

- Limited Outbreak
- Extensive Outbreak

- Recovery Phase

- Catastrophic
- Severe

FMD Spread vs. Stamping Out
Phases and Types of FMD Response
Phases of FMD Response

Heightened Alert Phase: FMD Outbreak in either Canada or Mexico, but not U.S.

Phase 1: From confirmation of the first case of FMD in the U.S. until reasonable evidence to estimate outbreak extent.

Phase 2: Surveillance and epidemiology provides timely evidence of outbreak extent to support decisions by Incident Command.

Phase 3: Recovery: surveillance and epidemiology indicates FMD is under control; plan implemented to recover disease-free status.

Phase 4: U.S. declared free of FMD, possibly with vaccination.
FMD Detection in the United States: Types of an FMD Outbreak

Six Types of FMD Outbreaks

- **Type 1:** Focal
- **Type 2:** Moderate Regional
- **Type 3:** Large Regional or National
- **Type 4:** Widespread or National
- **Type 5:** Catastrophic U.S.
- **Type 6:** Catastrophic North American

**Size of FMD Outbreak**
(in terms of animals, premises, and jurisdictions affected)

Response Shifts from Emphasis on Stamping-Out to Emphasis on Alternate Strategies (duration of FMD response)
Heightened Alert Phase

### PRODUCTORES Y EMPLEADOS
COMO PROTEGER A SU PIARA

Las enfermedades en las que más se centran los empleados y productores se producen por la introducción de nuevos virus, bacterias, y organismos patógenos en una granja. Por lo tanto, es fundamental proteger a las plantas de enfermedades. Los productores pueden evitar la introducción de enfermedades en una granja, si siguen algunos pasos básicos.

#### Steps to take if foreign animal diseases (FADs) are confirmed in the United States

**Key Points**

- Foreign animal diseases (FADs) are a very serious concern not only for the health and well-being of the animals, but also for the immediate and long-term effects on the movement and sale of pigs.
- While biosecurity should always be high, and producers should always report suspect FADs, it’s extremely critical to be more vigilant if a FAD is confirmed in the United States.
- If a producer is directly contacted by their State Animal Health Officials (SAHOs) or Federal Animal Health Officials, be able to abide by the guidelines they provide. This information is not intended to override specific instructions that are communicated directly to producers from these officials.

**What to do if a FAD outbreak is confirmed in the United States.**

1. **Get information about the situation from:**
   - State animal health agency websites, email or Facebook or Twitter
   - USDA website: www.aphis.usda.gov
   - The National Pork Board website: pork.org
   - National Pork Producers Council website: nppc.org
   - American Association of Swine Veterinarians’ website: aavsw.org
   - Word veterinarian
   - Farm owner/management staff (if applicable)
   - Local farm media

2. **Abide by all movement requirements and instructions put in place by state and federal animal health authorities.**

3. **Heighten biosecurity on your farm(s).**
   - Early in an outbreak, animal health officials will be working to establish response zones. At this time, it is important for producers to work with employees and the herd veterinarian to determine how best to implement a heightened biosecurity plan. Actions that should be taken:
   - Prevent entry of non-essential vehicles, equipment and personnel to the site.
   - Stop movement of non-essential vehicles, carcasses and equipment off the site.
   - Use designated entry and exit points for essential personnel, vehicles, and equipment.
   - Clean and disinfect essential vehicles and equipment entering and leaving the site.
   - Employees should wear clean clothes and footwear when coming to and from work.
   - Employees should scrub (preferably omit) before and after coming in contact with animals or areas where animals are housed.
   - If there are no showers on a site, employees should wash at home before and directly after work and wash hands and arms before and after coming in contact with animals.
   - All farm-supplied clothing should stay on site.
   - Employees should not come in contact with other animals after leaving the farm.
Phase 1 Actions
Note: Figures are not to scale. The Vaccination Zone can be either a Protection Vaccination Zone or Containment Vaccination Zone.
Phase 2: Type 1 - Focal FMD Outbreak

Focal area of infection limited to one state or small region with low to moderate livestock numbers on relatively small premises. Epidemiologic investigation and surveillance indicates that it has not spread beyond the initial few premises. The Infected Premises have not had extensive animal movement and are not too large to depopulate quickly. Rapid stamping out without vaccination is feasible.

- Continue strict quarantine and movement control for live animals, animal products, and vehicles, etc. within the Control Area (except as permitted by specific FMD response Business Continuity Plans)
- Continue stamping out with rapid depopulation, disposal, cleaning, and disinfection of Infected and Contact Premises
Phase 2: Type 2 – Moderate Regional FMD Outbreak

A few focal areas of infection limited to a region with low to moderate livestock numbers on small to medium size premises. Epidemiologic investigation and surveillance indicate FMDV has not spread beyond the region. The Infected Premises have not had extensive animal movement out of the Control Area and are not too large to depopulate quickly.

- Continue rapid stamping out of Infected and Contact Premises
- Consider ring or regional vaccination with eventual slaughter of vaccinated animals (vaccinate-to-kill or slaughter; option to switch to vaccinate-to-live if the type of the outbreak is elevated)
Phase 2: Type 3 – Large Regional FMD Outbreak

Multiple areas of infection are detected in a region, or the type, number and/or size of infected and contact herds are too great to depopulate quickly enough to suppress disease spread. Sufficient vaccine and resources can be made available to vaccinate designated susceptible domestic animals in the affected region (Control Areas). The number of vaccinated animals is not too great to consider a vaccinate-to-kill strategy.

- Discontinue automatic stamping out of Infected and Contact Premises. Some Infected and Contact Premises may be depopulated based on epidemiologic or humane considerations
- Implement suppressive vaccination of all designated animals in the Control Area to reduce the shedding and spread of virus. Officially identify all vaccinated animals and track these animals to ensure they are eventually slaughtered or euthanized and disposed of.
Phase 2: Type 4 – Widespread or National FMD Outbreak

Widespread areas of infection are detected involving too many herds or herds that are too large to depopulate quickly enough to suppress disease spread. Sufficient vaccine and resources are available to vaccinate all designated susceptible domestic animals in the affected regions (Control Areas). The number of vaccinated animals is too great to consider solely a vaccinate-to-kill policy. Implement a partial or complete vaccinate-to-live policy.

- Discontinue automatic stamping out of Infected and Contact Premises. Some Infected and Contact Premises (or severely affected individual animals) may be depopulated based on epidemiologic or humane considerations.
- Implement suppressive FMD vaccination of all designated animals in the Control Area to reduce the shedding and spread of virus.
Phase 2: Type 5 – Catastrophic FMD Outbreak

Widespread areas of infection are detected involving a large portion of the U.S. Sufficient vaccine and resources are not available to quickly vaccinate all designated susceptible animals in the affected regions. It becomes apparent that FMD is widespread, and will not be eradicated within a year.

- Declare FMD to be an endemic disease and implement a program for long term eradication and control, including vaccinate-to-live
- Discontinue automatic stamping out of Infected and Contact Premises. Some Infected and Contact Premises (or severely affected individual animals) may be depopulated based on epidemiologic or humane considerations
- Prioritize regions and herds to receive the limited amounts of vaccine available
Widespread areas of infection are detected involving a large portion of the U.S., Canada, and/or Mexico. Sufficient vaccine and resources are not available to quickly vaccinate all designated susceptible animals in the affected regions/countries. It becomes apparent that FMD is widespread, and will not be eradicated within a year.

- Declare FMD to be an endemic disease in North America and implement a program for long term eradication and control, including vaccinate-to-live
- Discontinue automatic stamping out of Infected and Contact Premises. Some Infected and Contact Premises (or severely affected individual animals) may be depopulated based on epidemiologic or humane considerations
- Prioritize regions and herds throughout North America to receive the limited amounts of vaccine available