

Food Related Emergency Exercise Bundle

**(FREE-B)   
Highplains Harbinger**

**Situation Manual**

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# Introduction

## **Purpose**

To protect the health of the American public, it is crucial that we ensure that food products are safe for consumption. Everyone involved in the food chain, from farmer through consumer, has a responsibility to keep the food supply safe.

At any point during production or distribution, food can be contaminated either accidentally, or on purpose from sabotage, fraud or terrorist activities. Regardless of the circumstances, the [Food and Drug Administration](http://www.fda.gov) (FDA) and United States Department of Agriculture [Food Safety and Inspection Service](http://www.fsis.usda.gov/) (USDA FSIS), collaborating with State and local agencies, work closely to safeguard the American food supply, and USDA Animal and Plant Health Inspection Service (USDA APHIS) protects plant and animal agriculture at the farm level.

Through this working relationship, the FDA and USDA APHIS and FSIS continuously seek new ideas and strategies to reduce the incidence of human health emergencies and to support food defense-related innovation. In light of food defense concerns, it is incumbent that Federal, State and local governments and industry partners understand the roles and responsibilities of all participating entities.

This scenario focuses on the investigation of animal disease caused by intentional infection of cattle with Foot and Mouth Disease (FMD) virus, highlighting the various animal agriculture agencies (Federal, State, local, Tribal and territorial) and their roles and responsibilities. It will also introduce the roles and responsibilities of law enforcement agencies during an intentional disease introduction incident. Communication to the public and issues of mental health and consumer confidence will also be addressed through this scenario.

## **Participants**

Many will benefit from participating in this scenario. We encourage as many of the following groups to participate in this exercise so that they can contribute to the overall understanding of the scenario, develop and/or strengthen working relationships with other organizations and benefit from the collective dialogue. Specific participant groups include: State department of agriculture representatives, private veterinary practitioners, state veterinarians, animal producers, animal feed control officials, the animal agriculture industry, USDA APHIS, Department of Homeland Security (DHS), Federal Bureau of Investigation, USDA Office of the Inspector General Emergency Response Team (OIG-ERT), State and local law enforcement agencies emergency managers, and public health officials.

## **Goal**

This tabletop exercise provides participants with an overview of actions taken at the Federal, Tribal, territorial, State and local level when a foreign animal disease related incident occurs. It will focus on the role that key personnel play in containing the problem. A large amount of information in this tabletop exercise will be generated from discussions among participants as they go through a hypothetical scenario. During the tabletop exercise, participants will assess plans, policies and procedures and think about how they would realistically apply them in the event of an incident. This tabletop exercise will help to facilitate discussion among various participating entities, such as emergency response managers, State and local entities and the private sector within the state.

## **Exercise Objectives**

At the conclusion of this tabletop exercise, you will be able to:

* Define your own individual specific role to a diverse group of responders by describing your purpose, objectives and expertise
* Describe the different roles of the private veterinary practitioner, public health veterinarian, animal feed and agriculture industry organizations in an animal disease outbreak
* Interact and collaborate with food defense and agroterrorism authorities and various law enforcement agencies in a coordinated manner to conduct a thorough investigation
* Analyze the situation and determine what other resources, if any, are required to successfully complete the investigation of the animal health issues and possible impact on human food

## **Exercise Structure**

This exercise is designed to be an interactive, facilitated tabletop exercise. Participants are encouraged to ask questions of each other and learn from one another. It has been designed by a group of subject matter and instructional design experts to provide participants with a real life, plausible foreign animal disease scenario. While this scenario has been simplified in order to present the information in an effective way, the scenario itself and the discussion questions have been designed to encourage participant dialogue and surface topics that are critically important to reacting to such incidents. The exercise has also been developed to provide participants with an opportunity to explore important topics like interagency collaboration, jurisdictional issues and risk communication. The information in this scenario reflects the policies and procedures currently in use and is accurate as of May 2011. If there has been an update to the procedure in your jurisdiction, please be sure to make the group aware of the change and work with the facilitator to ensure that all participants understand the update.

This exercise was developed by the Institute of Food Technologists (IFT) on behalf of the FDA CFSAN Food Defense Oversight Team. The entire series of modules includes the following:

* **Module 1** **–** Pre-Incident
* **Module 2** **–** Early Outbreak
* **Module 3** **–** Continuing Outbreak
* **Module 4** **–** Late Outbreak and Aftermath

The FDA CFSAN Food Defense Oversight Team appreciates the support of USDA Animal and Plant Health Inspection Service which served as subject matter experts and provided insight and guidance on the development of this scenario.

## **Exercise Guidelines**

As with any learning experience, it is important that this exercise be conducted in a safe learning environment so that all participants can share and explore concepts with one another while discussing multiple solutions and options for a given issue. This exercise will operate under the following guidelines:

* This will be an open, low-stress and non-public learning environment and is not intended to set precedents.
* Participants will listen to and respect the varying viewpoints of all of the other participants.
* The scenario we will discuss is plausible and the events occurred as presented. Suspend your disbelief, and feel free to discuss differing policies and procedures during the breakout discussion.
* Today’s facilitator is not necessarily a subject matter expert, and participants are expected to provide the expertise needed to ensure that our discussion is accurate and thorough.
* We will apply findings from today’s activities to our job/function and share key findings with colleagues.

## **Roles and Responsibilities**

**Lead Planner –** The person who has overall responsibility for the tabletop exercise, including convening the Planning Team and all pre- and post-exercise needs

**Participants –** Respond to the scenario based on their first-hand, experiential knowledge; current plans and procedures of their individual entity, agency or jurisdiction; and insights from training and experience.

**Evaluator(s) –** Record the highlights of the discussion at each breakout table. These people do not participate in the exercise but capture the essence of the dialog for use in the After Action Report. They are chosen based on their expertise in the areas they are to observe.

**Facilitator –** Generally leads the exercise, provides situation updates and moderates discussions. They also provide additional information and resolve questions as needed. Key officials may also assist with the facilitation as subject matter experts during the exercise.

**Group Leader –** Representative from each table (volunteered by the group) who will lead the group as it explores discussion questions and the breakout activities.

**Group Recorder/Reporter –** Representative from each table (volunteered by the group) who will ensure that the group discussions are kept on time, record the key themes discussed at the table, and will be responsible for reporting out during the large group dialogue.

# Module 1 – Pre-Incident

### October

Global Opponent (GO), a small and loosely organized group that had been linked to al-Qaida, was first discovered by the U.S. government based on information found on computers captured in a raid on Taliban forces in Afghanistan. The data gathered from these computers included plans for causing economic harm to the U.S. by attacking animal agriculture. Federal law enforcement agencies were made aware of this group as a potential threat.

GO activated a team in the U.S. to observe the livestock industry for weaknesses that could be exploited in an agroterrorism attack. Two members of that team traveled through the U.S. for six months before deciding on their target. They scouted livestock auctions, county and State fairs and various locations involving livestock transport. With the information gathered from these field operations, GO initiated their plan *High Plains Harbinger* and the U.S. team made plans to carry out the attack.

### April 30

The Cool Down Café and Truck Stop was crowded for an early Saturday morning as Hank Swithers brought his tractor trailer to a stop. Hank decided he needed a break before dropping his load of 45 brood cows at their new home on the Broken Arrow Ranch. A few minutes later, Tanya Strait pulled in beside him with her load of 50 head of stocker steer heading for the Windy River Feedlot. Both drivers went into the diner for a bite to eat.

A short time later, a pickup truck with a man and a woman pulled into the lot and parked near Tanya’s tractor trailer. The woman walked into the diner while the man reached behind the seat of the truck and pulled out a backpack. The man, appearing to stretch his legs, took a walk over by the cattle trucks. He ducked between the two tractor trailers unnoticed. Walking between the two trucks, he quickly pulled out a container from the backpack and sprayed the animals in both trucks with a liquid. The perpetrator heard someone talking on a cell phone approaching him and quickly tossed the container under one of the trucks and headed back to his vehicle. Meanwhile, his accomplice, who had already returned to the pickup truck, drove over to pick him up. They left the truck stop. Half an hour later, Tanya left the diner to continue on her journey. She noticed the spray container lying by a wheel of her truck and, thinking she could use it in her garden at home, decided to put it behind her seat and took it home to store in her gardening shed. Hank left the diner five minutes later with his load of cattle.

Hank headed west for about two and a half hours to the state line and dropped off his load at the 5,000 acre Broken Arrow Ranch which borders two other states. The Broken Arrow Ranch typically runs about 2,000 head of cattle and has good biosecurity measures in place. Tanya took her shipment northeast about three hours to the Windy River Feedlot near a small town in the middle of the state. The Windy River Feedlot has approximately 1,500 head of cattle on feed and also has good biosecurity controls.

## **Developments**

1. GO plans for harming U.S. economy are discovered in Afghanistan.

2. Federal law enforcement agencies are made aware of GO’s potential threat.

3. A terrorist sprays liquid on cattle in two cattle carrier trucks at truck stop.

4. One truck heads to the Broken Arrow Ranch, which borders two other states.

5. The other truck heads to Windy River Feedlot in the middle of the state.

## **Table Activity**

1. Identify a group leader and group recorder/reporter at your table. Use your allotted time to consider the developments and questions assigned to your group for Module 1.
2. Identify any additional requirements, critical issues, decisions and questions you think should be addressed at this time.
3. Unanswered questions should be recorded for discussion with the entire group.

## **Questions for Participant Groups**

**Private Veterinary Practitioners**

1. What types of information does the State veterinarian make available to you regarding animal health and diseases, both during a specific issue/event, as well as on a regular basis?
2. What kinds of information do your professional associations provide regarding animal health and diseases?
3. Do you communicate regularly with other members of your profession?
4. What kinds of issues do you usually discuss?

**Livestock Industry**

1. What steps do you take to ensure the security of the transportation of livestock to and from your establishment, including times when animals are left unattended? What other biosecurity measures (e.g., disinfection of trucks before proceeding to the next farm) are in place? How is biosecurity training conducted?
2. What types of information does the State veterinarian make available to ranchers, feed lot operators, etc., regarding animal health and diseases both during a specific issue/event, as well as on a regular basis?
3. What kinds of information do your industry associations provide regarding animal health and diseases?
4. Do you communicate regularly with other members of your industry?
   1. What kinds of issues do you usually discuss?
5. Given that law enforcement agencies were alerted to GO’s intent to attack animal agriculture, would you expect to be alerted to this information? If so, what information would you want, and what actions would you take as a result of that information?

**Government Law Enforcement**

* USDA Office of the Inspector General Emergency Response Team (OIG-ERT)
* State law enforcement agencies
* Local law enforcement agencies
* Federal Bureau of Investigation
* Department of Homeland Security
* USDA APHIS Investigative and Enforcement Services (IES)

1. Does anyone on your staff have a security clearance, and is your facility able to receive, transmit and store classified information?
2. What mechanisms do the FBI and DHS have in place to share the threat information? Can it be made actionable, and with whom should this information be shared?
3. Who in your organization would receive information on such threats? What would your organization do with this type of information?
4. What mechanism is in place to contact affected allied industries, principalities, etc*.* if threat information would be of benefit to them?
5. What current measures are in place to protect truck stops and rest areas, as well as livestock markets, State and county fairs, rodeos, etc?
   1. How can they be improved?
   2. Whose responsibility is it for those improvements?
6. Should you consider restricting transport of cattle or any other relevant operations?
7. At this point, would your organization share this type of threat information with the public? How is this dependent on the security classification of the information?
   1. Who would make this decision?

**Government Agriculture and Health Officials**

* State department of agriculture representatives or equivalent
* State veterinarians
* Animal feed control officials
* USDA APHIS Veterinary Services (VS)
* Public health officials
* State EPA equivalent

1. What is the State’s Foreign Animal Disease Preparedness Plan? Does anyone on your staff have security clearance, and is your facility able to receive, transmit and store classified information?
2. Who in your organization would receive information on such threats? What would your organization do with this type of information?
3. To whom would the information gained from the raid in Afghanistan be communicated? How would it be communicated? Who is the risk communication lead in your group? If there is a combined, coordinated response, how is that handled?

a. What actions if any would be implemented?

1. At this point, would your organization share this type of threat information with the public (consumers)?

a. Who would make this decision?

**Emergency Managers**

1. Who in your organization would receive information on such threats? What would your organization do with this type of information?
2. To whom would the information gained from the raid in Afghanistan be communicated? Do you have a person/liaison identified in allied industries (packer/processor, feedlots, co-ops, etc.) who receives threat assessments?

a. If not, what mechanism is in place to contact affected allied industries, principalities, etc*.* if threat information would be of benefit to them?

b. What actions, if any, would be implemented?

1. At this point, would your organization share this type of threat information with the public?

a. Who would make this decision?

# Module 2 – Early Outbreak

### Early May 6

During the morning rounds, ranch hands at the Broken Arrow Ranch noticed that some of the new cattle appeared listless, had excess nasal mucous secretions and were drooling excessively. They notified their ranch manager, Buck Walters, when they returned to the ranch office. Walters took a ride out to view the cattle firsthand and confirmed the clinical signs. Walters requested that their private veterinarian examine the sick cattle. Upon the veterinarian’s examination, he confirmed the initial clinical signs and noted the following: fever, lameness, the presence of erosions and vesicular lesions on the gums, muzzle, and tongues of several of the cattle. The vet subsequently recommended that the new cattle be kept separate from the rest of the herd and contacted the State veterinarian about the findings.

## **Developments**

1. New cattle at Broken Arrow Ranch develop the following symptoms: drooling, listlessness and vesicular lesions on tongue.

2. Ranch vet is called to inspect sick cattle.

3. Ranch vet contacts the State Vet with his findings.

## **Table Activity**

1. Identify a group leader and group recorder/reporter at your table. Use your allotted time to consider the developments and questions assigned to your group for Module 2.
2. Identify any additional requirements, critical issues, decisions and questions you think should be addressed at this time.
3. Unanswered questions should be recorded for discussion with the entire group.

## **Questions for Participant Groups**

**Private Veterinary Practitioners**

1. After visiting a ranch and examining animals with these symptoms, what actions, if any, are taken before visiting the next farm? What are your biosecurity measures?
2. Would your sensitivity to calls reporting similar symptoms be heightened? How would your actions in response differ, if at all?
3. In addition to formally contacting the State veterinarian, would you share this information (formally or informally) with colleagues or clients?
4. What would you do if you could not reach the State veterinarian when you called?

**Livestock Industry**

1. How do the different types of operations impact potential planning/response? Feedlot, cow-calf, dairy, packer/processor, backgrounder, swine, sheep, goats, etc.?
2. What type of plan does your industry have for dealing with asymptomatic animals when other animals have presented with clinical signs?
3. Would you communicate with customers and suppliers? How?
4. If you were not associated with the affected ranch, would you expect to be alerted to the situation at this point? If yes, what information would you expect to receive and from whom?

**Government Law Enforcement**

* USDA Office of the Inspector General Emergency Response Team(OIG-ERT)
* State law enforcement agencies
* Local law enforcement agencies
* Federal Bureau of Investigation
* Department of Homeland Security
* USDA APHIS Investigative and Enforcement Services (IES)

1. How would your agency communicate and coordinate with other agencies within your State or jurisdiction as well as the Federal government? Who would have this authority?
2. How would local command and control coordinate the arrival and utilization of external personnel resources?
3. How would State and local law enforcement be utilized at this point in the scenario?
4. How do the different types of operations impact potential planning/response (e.g., feedlot, cow-calf, dairy, packer/processor, backgrounder, swine, sheep, goats, etc.)?

**Government Agriculture and Health Officials**

* State Department of Agriculture Representatives or equivalent
* State veterinarians
* Animal feed control officials
* USDA APHIS
* Public health officials
* State EPA equivalent

1. At this point in the scenario, what agencies are involved in the developing the response strategy?
2. At this point in the scenario, would you conduct a traceback of the cattle to the point of origin (driver, truck, etc.)? Who would take the lead?
   1. What procedures are implemented to trace forward and determine which ranches were visited by the trucks after they made their deliveries?
   2. Is the potential for the truck drivers to transfer the virus considered? Who communicates with the truck driver?
   3. Between the time the virus is introduced and the time that animals show clinical signs of disease, what is the potential spread of the virus in your jurisdiction and neighboring jurisdictions? How is this considered during the response?
3. Is there a protocol in place for sending samples to a Foreign Animal Disease Diagnostic Laboratory (FADDL)? How many FADDL-trained veterinarians do you have in your state? What is their availability? Who can deploy them?
4. What does the State veterinarian’s office do as a result of the report from the private vet?

a. What information is shared with neighboring States/jurisdictions and when?

b. What information is shared with allied and potentially affected industries? When and to whom is this communication made?

1. How do the different types of operations impact potential planning/response (e.g., feedlot, cow-calf, dairy, packer/processors, backgrounder, swine, sheep, goats, etc.)?
2. Would your organization be handling or preparing to make public announcements/messaging? What information should be released at this point?

a. To whom should the information be released? Why?

b. How do you communicate with the following groups, and what would you tell them regarding the incident?

* + - 1. Other States/jurisdictions
      2. Potentially affected industries
      3. Consumers

c. Who has overall authority for releasing information?

d. How would you assure the public that the food supply (meat, dairy, etc.) is safe?

1. How would your office communicate and coordinate with other agencies within your state as well as the Federal government?

a. Who would have this responsibility?

b. How do the agencies ensure business continuity of the agriculture industry in the affected area?

1. What plan or procedure does your office have in place to handle this type of scenario?

**Emergency Managers**

1. How would local command and control coordinate the arrival and utilization of external personnel resources?
2. At this point in the scenario, what agencies are involved in developing the response strategy? How does the National Response Framework impact or address this?
3. How would your agency communicate and coordinate with other agencies within your State/jurisdiction as well as the Federal government? Who would have this authority?
4. How do the different types of operations impact potential planning/response? Feedlot, cow-calf, dairy, packer/processor, backgrounder, swine, sheep, goats, etc.?
5. What are the plans and procedures for surveillance of the wildlife population?

# Module 3 – Continuing Outbreak

### Later May 6

The State veterinarian immediately contacted the Area Veterinarian in Charge (AVIC). A Foreign Animal Disease Diagnostician (FADD) was dispatched to the Broken Arrow Ranch to conduct an exam and collect samples. The animals on the ranch were quarantined by the FADD. The samples were immediately sent to the FADDL.

### May 7

### Ranch hands at the Windy River Feedlot noticed that their newest pen of steers were listless and “off-feed”. Tom Childers, the feedlot manager, called the feedlot veterinarian to examine the affected steers. The vet examined the animals and noted the presence of vesicular lesions on the tongues of several of the steers and contacted the State veterinarian about his findings. The State veterinarian contacted the AVIC. An FADD was dispatched to Windy River Feedlot to conduct exams and collect samples. The animals on the farm were quarantined by the FADD. The samples were immediately sent to the FADDL.

The FADDL results for the samples taken from the Broken Arrow Ranch returned a presumptive positive diagnosis for FMD. Because of the current size and to prevent spread of the outbreak, collaborating with the State, USDA/APHIS developed and initiated control strategies at the Broken Arrow Ranch. In order to prevent the movement of susceptible species and the spread of FMD, a statewide control area was implemented later that day and messages to the public were disseminated in collaboration with the State.

**Notes: About Foot and Mouth Disease**

**As described by USDA APHIS at** [**http://www.aphis.usda.gov/publications/animal\_health/content/printable\_version/fs\_foot\_mouth\_disease07.pdf**](http://www.aphis.usda.gov/publications/animal_health/content/printable_version/fs_foot_mouth_disease07.pdf)

**“Foot-and-mouth disease (FMD) is a severe, highly contagious viral disease of cattle and swine. It also affects sheep, goats, deer, and other cloven-hooved ruminants. FMD is not recognized as a zoonotic disease.” This means that human beings do not contract the illness.**

**“Livestock animals in this country are highly susceptible to FMD viruses. If an outbreak occurred in the United States, this disease could spread rapidly to all sections of the country by routine livestock movements unless it was detected early and eradicated immediately. If FMD were to spread unchecked, the economic impact could reach billions of dollars in the first year. Deer and other susceptible wildlife populations could become infected and potentially serve as a source for reinfection of livestock. Vaccines for FMD are available, but must be matched to the specific type and subtype of virus causing the outbreak. Vaccination can help contain the disease if it is used strategically to create barriers between FMD-infected zones and diseasefree areas.**

**(end notes)**

The animals from Broken Arrow and Windy River were traced back to their original ranches, which had yet to experience any clinical signs of the disease. The transport companies were identified and contacted.

### May 8

The truck drivers for the transport companies were identified and contacted. During her interview, Tanya Strait provided authorities with the spray container she found near her truck on May 2.

The container was sent to FADDL to be tested for FMD. The only identifiable fingerprints taken from the sprayer belonged to Tanya.

Hank Swithers indicated he only stopped once at Cool Down Café and Truck Stop. Law enforcement determined that both Hank and Tanya were stopped at the same location on May 2.

Law enforcement officers visited the Cool Down Café and Truck Stop to interview the employees who were working there on May 2. No one saw suspicious activity, and no leads were developed. Video surveillance tapes were useless as they only showed the gas pump area and the cash registers.

### May 12

A hunter trapped a feral pig near Broken Arrow Ranch. The hunter noticed odd sores on the pig’s nose. He contacted the State game, fish and wildlife department. Due to increased awareness from the public messaging, the State game, fish and wildlife department contacted the State veterinarian.

An FADD was dispatched to collect samples which were immediately sent to the FADDL.

## **Developments**

1. State veterinarian dispatches FADD to Broken Arrow and contacts AVIC.

2. FADD is dispatched to collect samples to be sent to a FADDL and quarantines Broken Arrow.

3. New cattle at Windy River Feedlot show following symptoms: listlessness, “off-feed” and vesicular lesions on tongue. Ranch vet contacts State vet with findings.

4. State veterinarian dispatches FADD to Windy River and notifies AVIC.

5. FADD is dispatched to collect samples to be sent to a FADDL and quarantines Windy River.

6. Preliminary test for Broken Arrow return presumptive positive for FMD.

7. State/Federal control strategies are initiated and movement controls are implemented.

8. Animals are traced back to original ranches which have no signs of outbreak.

9. Cattle carrier drivers are identified and interviewed.

10. Tanya Strait provides investigators with the spray container she found.

11. Investigators determine that both trucks were parked at the same truck stop at the same time.

12. Feral pig is trapped near Broken Arrow that has sores on its snout. State game, fish and wildlife officials are contacted.

13. State game, fish and wildlife official contacts the State veterinarian with his findings.

14. FADD collects samples from the pig for FADDL.

## **Table Activity**

1. Identify a group leader and group recorder/reporter at your table. Use your allotted time to consider the developments and questions assigned to your group for Module 3.
2. You should also identify any additional requirements, critical issues, decisions and questions you think should be addressed at this time.
3. Any unanswered questions should be recorded for discussion with the entire group.

## **Questions for Participant Groups**

### Private Veterinarians

1. How would you expect to learn about the outbreaks? Would you learn from the public messages, or are there other communication systems in place?
2. How would you address the fears of current clients if they call to express concern about their herds?
3. If you receive higher-than-average requests for consultations, how would you prioritize appointments?
4. If you examine potentially affected cattle, do your biosecurity measures change as a result of knowing that there is an ongoing outbreak?

### Livestock Industry

1. If quarantine is enacted, what does that mean exactly? What message does that give the producer?
2. How would your actions change if the animals came from multiple locations or made multiple stops? Do you have a mechanism in place for animal tracing?
3. Do special bulletins go out to other animal producers? Who would you expect to receive this from? What information would you expect to be contained in a bulletin?
4. What type of information is shared with the public? How and when is it shared? If your cattle were not affected, how would you communicate that to your customers? How would concerns regarding consumer confidence be addressed?
5. How do you work with your customers/suppliers on tracing of animals? Do you have mechanisms in place to ensure business continuity?

### Government Law Enforcement

* USDA Office of the Inspector General Emergency Response Team (OIG-ERT)
* State law enforcement agencies
* Local law enforcement agencies
* Federal Bureau of Investigation
* Department of Homeland Security
* USDA APHIS Investigative and Enforcement Services (IES)

1. Which law enforcement agency would be in charge at this point in the scenario? Who decides this, and how is this information communicated to the other agencies?
2. How would State and local law enforcement be utilized at this point in the scenario?
3. Given the scope and nature of the situation, how is information shared? How will regional response strategies be coordinated with other jurisdictions (Federal, State and local)?
4. Which organization would be conducting the interviews of potential witnesses?
5. How is communication with affected and allied industries handled?
6. How would concerns regarding the vulnerability of the United States to a terrorist attack be addressed?
7. What would be your agency’s role in movement control? Who enforces the movement control policy? Where do the funds come from?
8. In an event similar to the High Plains Harbinger Scenario, what are the State and/or Federal protocols for the preservation of evidence?
   1. What is the protocol for evidence preservation at FADDL?
   2. What evidence might be at FADDL?
9. What would be done with the spray container once your organization received it? Are there special procedures or precautions taken when evidence such as the spray container may be contaminated with an infectious agent? Who would determine who gets it and when?
   1. How would the investigation have been impacted if Tanya had not picked up the spray bottle and provided it to authorities?
10. What would investigators do with the information that both transport trucks were stopped at the same place? What if Tanya had stopped more than once? How does the second truck stopping there change the investigation?
11. At what point do the State attorney general and governor become involved?
12. How will regional response strategies be coordinated with other jurisdictions (Federal, State and local)? How and when would the FBI be engaged?

### Government Agriculture and Public Health Officials

* State department of agriculture representatives or equivalent
* State veterinarians
* Animal feed control officials
* USDA APHIS
* Public health officials
* State EPA equivalent

1. Who would be in charge at this point in the scenario? What would the role of the State secretary or commissioner of agriculture be? If there is a transfer of responsibility, what type of plan is in place to facilitate that responsibility? Are these plans practiced on a state level?
2. Who contacts the neighboring States/jurisdictions? What information is shared with neighboring States/jurisdictions and when? At what point are neighboring States/jurisdictions brought into the decision making process? Or are they?
3. In this scenario the traceback is completed within one day. Is this realistic? Who would need to be engaged to conduct an expeditious traceback and traceforward?
4. How does information regarding movement control get disseminated? Who is responsible for this task? Who enforces the movement control policy? Where do the funds come from? How are requests for waivers from quarantine handled?
5. What is considered a control area in your State/jurisdiction?

a. Are there different threat zones/levels in the control area? What is allowed to move in the control area? Does this definition change if the cattle were dairy instead of beef cattle? For example, would the transportation of milk be affected?

b. What kind of impact does the control area have on other commercial species and wildlife? What is the collateral impact on business (transportation, the poultry industry, the movement of other farm commodities, etc.)?

c. How quickly could your jurisdiction establish an FMD control area? Has your jurisdiction exercised this task?

1. What type of information is shared with the public and when? Who notifies the public and how?

a. How are concerns related to the safety of meat and dairy products addressed?

b. How would concerns regarding the vulnerability of the United States to a terrorist attack be addressed?

c. How would human mental health concerns stemming from this incident be addressed?

1. How is communication with affected and allied industries handled? Do special bulletins go out to other animal producers? Who is responsible for this?
2. Is there a protocol in place for sending samples to FADDL?
3. When would wildlife be considered potential carriers that could infect domestic herds?
4. How would your actions change if the animals came from multiple locations or made multiple stops? Do you have a mechanism in place for animal tracing?
5. At what point do the State attorney general and governor become involved?

### Emergency Managers

1. Given the scope and nature of the situation, what information should be shared and how? How will regional response strategies be coordinated with other jurisdictions (Federal, State and local)?
2. Who would be in charge at this point in the scenario? When would you take over control of the situation? What type of plan is in place for the transfer of that responsibility? Are these plans practiced on a State level?
3. How is communication with affected and allied industries handled? Do special bulletins go out to other ranchers? Who is responsible for this?
4. Who contacts the neighboring States/jurisdictions? What information is shared with neighboring States/jurisdictions and when?
5. How does information regarding movement control get disseminated? Who is responsible for this task?

a. Who enforces the movement control policy? Where do the funds come from?

7. What type of information is shared with the public and when? Who notifies the public and how?

# Module 4 – Late Outbreak and Aftermath

### May 14

Preliminary results from FADDL for the samples taken from the feral pig returned a negative diagnosis for FMD.

### May 15

FADDL confirmed that the animals at both ranches were infected with FMD virus serotype “O”. The test results on the spray container found by Tanya Strait’s truck were positive for the same strain of FMD as the outbreak.

Multiple ranches in the two states bordering Broken Arrow and a ranch bordering Windy River reported animals with clinical signs of FMD. The Federal quarantine area was extended to the two neighboring states with presumptive cases of FMD. Federal authorities decided that “stamping out” (mass euthanasia) with protective emergency vaccination rather than vaccination would be the most effective approach to control the outbreaks. Protective emergency vaccination is conducted among animals in uninfected areas and creates a zone of animals with reduced susceptibility around the infected area. Depopulation plans were then initiated at all affected ranches

### September 30

The Federal eradication program successfully contained the outbreak to three states. Within those three states, animals at several ranches were infected with the FMD virus. Four months after the last confirmed case was discovered, the total cost to date of the outbreak (loss of international trade and eradication expenses) was in the billions of dollars.

## **Developments**

1. Tests come back negative for FMD on the pig.
2. FADDL confirms that the animals tested at both locations as well as the spray container are contaminated with the same strain of FMD.
3. Multiple ranches in the two neighboring states report clinical signs of FMD.
4. Mass depopulation (“stamping out”) with protective emergency vaccination is initiated at affected premises in all three states.
5. Federal eradication program contains the outbreak.
6. Monetary damages in all three states are in the billions of dollars.

## **Table Activity**

1. Identify a group leader and group recorder/reporter at your table. Use your allotted time to consider the developments and questions assigned to your group for Module 4.
2. Identify any additional requirements, critical issues, decisions and questions you think should be addressed at this time.
3. Unanswered questions should be recorded for discussion with the entire group.

## **Questions for Participant Groups**

### Private Veterinarians

1. Do you provide biosecurity training or guidance on biosecurity for your clients? Where would you direct clients seeking more information?
2. If your practice were located in a state adjacent to an affected state, would you communicate with your clients to alert them of the situation? What mechanisms are in place to share this type of information?

### Livestock Industry

1. What activities would your group do at this stage of the investigation?
2. What would have happened had the test on the feral pig come back positive?
3. Once FADDL determined that the outbreak strain at both ranches was the same as found in the spray container, does this change the response? How? What happens next?
4. If there is a vaccination strategy, how would you influence decisions made regarding which animals should be vaccinated?
5. What if burial was not an option? What other options exist?
6. What should happen with animals that were already in pipeline? Do whole herds need to be culled? What about other animals that were in contact with infected trailers, equipment, personnel, etc.?
7. What does insurance cover? Are losses to collateral industries covered?
8. Do you know how your allied industries will respond to such an outbreak? What should you anticipate?
9. How would you communicate with suppliers and customers? Who absorbs the cost?

**Government Law Enforcement**

* USDA Office of the Inspector General Emergency Response Team (OIG-ERT)
* State law enforcement agencies
* Local law enforcement agencies
* Federal Bureau of Investigation
* Department of Homeland Security
* USDA APHIS Investigative and Enforcement Services (IES)
  1. What role would your agency play in the “stamping out” process? What role does the  
     industry play?
  2. How would the public communication process occur in this situation? Would it include other agencies or States/jurisdictions?
  3. What would have happened had the test on the feral pig come back positive?

### Government Agriculture and Public Health Officials

* State department of agriculture representatives or equivalent
* State veterinarians
* Animal feed control officials
* USDA APHIS Veterinary Services (VS)
* Public health officials
* State EPA equivalent

1. Who decides the valuation and compensation of the livestock to be euthanized?
   1. How long does it take for the ranchers to be reimbursed?

How would your agency be involved in the decision to “stamp out” or to vaccinate?

* 1. Would other vaccination strategies (including ring vaccination) become a possibility? Who makes this decision? What cattle if any can go to slaughter?
  2. Would the discussion regarding vaccination differ if the affected herd were dairy cattle or swine as opposed to beef cattle?

1. Once the Depopulation Plan is initiated, how might it change based on location and disposal methods?

What type of contingency plan does your State/jurisdiction have for dealing with a mass depopulation and the disposal of such a large number of animals? Who is responsible for this plan? What if burial were not an option? What other options exist?

1. What is the role of EPA and equivalent State agencies?
2. When would the eradication of FMD be considered complete? When are producers allowed to repopulate with livestock?
3. How would the public communication process occur in this situation? Would it include other agencies or States/jurisdictions?
4. How would public information officers from Federal, State and local agencies be coordinated? Who would assume responsibility and when?
5. How would concerns regarding consumer confidence be addressed?
6. How would human mental health concerns stemming from this incident be addressed?
7. When would the Stafford Act and Economy Act become relevant?
8. What surge capacity do you have in your office to deal with Foreign Animal Diseases? What is the role of the National Guard for state disaster response?
9. Who decides when depopulation of wildlife should occur? How is this carried out and by whom?

### Emergency Management

1. What activities would your group do at this stage of the incident?
2. How would the public communication process occur in this situation? Would it include other agencies or States/jurisdictions?
3. How would public information officers from Federal, State and local agencies be coordinated? Who would assume responsibility and when?

# Wrap Up Activities

We will spend the remaining time synthesizing what we discussed today, identifying important action steps to include in the After-Action Report and Improvement Plan (AAR/IP) and obtaining your feedback on the overall exercise. An AAR/IP is an important tool used to evaluate the exercise addressing outcomes, strengths, weaknesses and lessons learned. The facilitator will let you know when to expect to receive the final AAR/IP. The AAR/IP should be treated as a “For Official Use Only” document and only shared with those having a need to know.

At your table, please take a few minutes to discuss the questions below as directed by the facilitator. We will then take some time as a large group to identify common themes and takeaways. At the conclusion of this discussion, we ask that you complete the feedback form that will be provided by your facilitator.

**Wrap up Questions**

1. What is the most important thing you learned today in terms of managing an outbreak that impacts multiple jurisdictions?
2. What information do you need to make informed decisions during such an event? If you don’t have that information, how do you get it or what needs to be done to make a decision without it?
3. Do you think this exercise will prompt your organization to evaluate your protocols, policies and procedures?
4. What top three actions should be taken to ensure proper event management based upon what you have learned from this exercise?
5. What went right, and what can you improve on at each stage of the outbreak investigation?
6. What are the roles and responsibilities of the various clinical, animal and public health, regulatory and laboratory communities engaged in this investigation?
7. What could be done through all phases to reduce the time from the first signal to implementation of effective controls to final resolution in order to protect animal health and reduce the economic impact on the entire industry?
8. What are some key lessons related to risk communication that you discussed today? What can you commit to doing to ensure that your organization supports a consistent, multi-jurisdictional, science-based message in the event of an outbreak?

# Appendix A: Resources

USDA APHIS. National Veterinary Stockpile (NVS). <http://www.aphis.usda.gov/animal_health/emergency_management/nvs.shtml>

USDA APHIS. 2007. Foot and Mouth Disease Fact Sheet. <http://www.aphis.usda.gov/publications/animal_health/content/printable_version/fs_foot_mouth_disease07.pdf>

General foot and mouth disease information [www.footandmouthdiseaseinfo.org](http://www.footandmouthdiseaseinfo.org)

Dairy Management Inc list of FMD resources. <http://sites.redwoodeditor.com/dmi-crisis-training/resources/>

National Center for Foreign Animal and Zoonotic Disease Defense. <http://fazd.tamu.edu/>.

NAHEMS Guidelines. Vaccination for contagious diseases. Appendix A Foot and Mouth Disease. <https://fadprep.lmi.org> (requires login)

# Appendix B: Acronyms Used

AAR After-Action Report

AAR/IP After-Action Report and Improvement Plan

APHIS Animal and Plant Health Inspection Service

AVIC Area Veterinarian in Charge

DHS Department of Homeland Security

EPA Environmental Protection Agency

FADD Foreign Animal Disease Diagnostician

FADDL Foreign Animal Disease Diagnostic Laboratory

FBI Federal Bureau of Investigation

FDA Food and Drug Administration

FMD Foot and Mouth Disease

GO Global Opponent

IES Investigative and Enforcement Services

IFT Institute of Food Technologists

NVS National Veterinary Stockpile

OIG Office of the Inspector General (USDA)

OIG-ERT Office of the Inspector General-Emergency Response Team

U.S. United States

USDA United States Department of Agriculture

USDA FSIS United States Department of Agriculture and Food Safety and Inspection Service

VS Veterinary Services