

FOREIGN ANIMAL DISEASE PREPAREDNESS AND RESPONSE STRATEGY REPORT – January 2018

Pursuant to Senate File 510, the Iowa Department of Agriculture and Land Stewardship Animal Industry Bureau submits this report to update the Legislature on the Department's preparations for any future outbreaks of a foreign animal disease and the utilization of the Foreign Animal Disease Preparedness and Response Fund. Senate File 510 directed the Department as follows:

In developing a foreign animal disease preparedness and response strategy as required in section 163.3C as enacted in this division of this Act, the department shall prepare an interim report to be submitted to the joint appropriations subcommittee on agriculture and natural resources not later than January 10, 2018. The interim report shall include preliminary findings and recommendations together with plans for completing the strategy. The department shall prepare a final report to be submitted to the joint appropriations subcommittee on agriculture and natural resources not later than January 10, 2019. The report shall include final findings and recommendations for establishing the strategy, and may include any proposed notice of intended action for consideration by the department or proposed legislation for consideration by the general assembly.

The Department consulted with the Iowa Cattlemen's Association, the Iowa State Dairy Association, the Pork Producers Association, the Iowa Sheep Producers Industry Association, the Iowa Turkey Federation, the Iowa Poultry Association, and many others.

The avian influenza outbreak of 2015 adversely affected 32 million birds in 18 Iowa counties. As a result of the Department's experience with the outbreak, the need for an additional veterinarian to coordinate ongoing preparedness and response

work was found. The ability to quickly identify all farms with animals around a farm with diseased animals was identified as key to the quick control and eradication of disease. Additionally, updates for and verification of the voluntary premise identification database were determined to be of value. The need to review and updates foreign animal disease plans was also noted.

Dr. Judith LaBounty was hired as a result of the funding allocated last year for the Animal Disease Preparedness and Response Fund and the need to coordinate all of the activities associated with disease preparedness. Since Dr. LaBounty began her duties, she has been busy meeting with industry, state and federal partners; working with current disease plans at the state and federal level; and most importantly coordinating IDALS' response to any foreign animal disease.

Updates to Iowa's voluntary premise identification database began in October. The voluntary premise identification database started back in 2006 and verification of existing information has never taken place.

The premise identification database allows producers to voluntarily register their premise, provide the key contact for the premise, identify livestock on the premise, and give the 911 address of the premise. Once the information is received from the producer, a seven-digit identification number is given to the premise. This database enables IDALS to quickly identify all premises in an area of a disease outbreak and quickly set up procedures and protocols to help stop the spread of the disease and to assist in timely notification of neighboring producers. An updated database is critical.

In order to manage this database update undertaking, industry support was engaged and IDALS staff prepared a plan to handle the process. The plan was set up and is currently ongoing.

Premise renewal forms are sent out to verify existing premises in the database in ten counties per month. In order to accomplish this, a temporary employee was hired. As of January 10, 2018, premises records for 37 counties have been updated by mailing out 13,493 premise renewals. 4,649 premise records have been updated. Additional information about the Department's Premise Identification Program can be found at <http://www.iowaagriculture.gov/animalIndustry/premiseIdentificationProgram.asp>.

During 2017, IDALS staff has also worked on updating the response plan for Avian Influenza ("AI"), participated in exercises for Avian Influenza, participated in disease preparedness trainings offered by the USDA, and held internal exercises for staff.

In 2016, the department began working on updating the Iowa Foot and Mouth Disease ("FMD") State Response Plan for Iowa. The Center for Food Security and Public Health at Iowa State University of Veterinary Medicine was contracted to help update this plan. Before the plan was updated, a series of meetings were held to update the industry on the current status of FMD and potential ramifications if it were to be found in Iowa. Input was gathered from these meetings, as well as other sources, and the Iowa Foot and Mouth Disease State Response Plan was updated. The summary and plan are attached.

As the FMD Response plan was being updated, plans were also being made to hold an exercise to evaluate the updated plan. The SES Corporation was engaged to coordinate this exercise. On June 15, 2017, the exercise was held and well attended by industry, other state agencies, and federal partners. An after-action report was developed based on the outcomes from the exercise and key objectives were identified for follow up.

Summary of Iowa Foot-and-Mouth Disease State Response Plan

Iowa's Plan to Identify Foot-and-Mouth Disease and Protect Iowa's Livestock from Infection

The Iowa Foot-and-Mouth Disease (FMD) State Response Plan documents provide guidance and options for the State of Iowa's response to the identification of FMD in North America, in the United States, and in the State of Iowa. The intent in implementing the Plan is to contain the disease and regain FMD-free status as quickly as possible while minimizing disruption to Iowa's agricultural business.

Due to the unpredictability of an FMD outbreak, decisions and response strategies must be based on information known at the time. Many factors need to be considered during a fluid event to ensure actions are based on objectives, effect, practicality, available resources, and the ability to implement. A summary of the *Classification of Phases and Types of a Foot-and-Mouth Disease Outbreak and Response* offering more information has been incorporated into the plan.

The Iowa Plan is presented as two separate living documents, **Iowa Foot-and-Mouth Disease State Response Plan** and **Protecting Iowa Livestock and Response to an FMD Outbreak**. These two documents developed by Iowa Department of Agriculture and Land Stewardship (IDALS) present options that may be viable under certain circumstances. These documents are consistent with the USDA Animal and Plant Health Inspection Service (APHIS) Foreign Animal Disease Preparedness and Response Plan (FAD PReP) resources, as Iowa partners with federal authority and accesses federal resources.

The **State Response Plan** serves as a guide for collaboration of the lead and supporting agencies. IDALS is authorized through both the Code of Iowa and Iowa Administrative Code to serve as lead state agency in administering and enforcing the provisions for the control of infectious or contagious disease affecting animals within the state.

The initial pages of the State Response Plan provide a background on FMD in livestock, as well as the challenges of identification of the disease and implementation of the Plan. Section VI. Concepts of Operations describes general actions needed to ensure an effective, coordinated response, and addresses disease identification, investigation, containment, and recovery. Communication, both internal with supporting agencies and external with stakeholders, is recognized as a vital component in the response. Section VIII. Organizations and Assignment of Responsibilities provides guidance for a collaborative effort with supporting agencies. Based on roles described in the State Emergency Support Function #11, requests may be made for assistance.

The document titled **Protecting Iowa Livestock and Response to an FMD Outbreak** includes more specifics on potential actions to identify the disease, ascertain the scope of the outbreak, and protect Iowa livestock from exposure. The first 20 pages work through several levels of severity of threat based on the existence and location of known or suspected disease. Options include notifying key response entities, temporarily stopping movement, conducting surveillance, restricting movements, and assessing risk to be included in the process of determining strategy. The initial response will be based on depopulation of animals that may spread the disease. Triggers that may change the depopulation strategy include an assessment of the scope and location of the outbreak, vaccine availability and its distribution, and existing resources such as personnel, disposal opportunities, and funding. If depopulation fails to contain the disease, other strategies to protect Iowa's agriculture and preserve animal protein will be necessary.

This document includes considerations for industry's actions to protect their own herds, maintain their business, and if infected, protect their neighbor. The more aggressively industry can prevent infection by defending a Line of Separation, the less complex is the task of disease containment. Sharing information is crucial. Specific information held by the state pertaining to the investigation and identification of the disease is confidential. Therefore, industry may consider the development of and voluntary participation in a 'Neighborhood Network' to share information within their industry and with their neighbors. All stakeholders in Iowa need to collaborate on how best to protect Iowa's agriculture industry.

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Iowa Foot-and-Mouth Disease State Response Plan

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I. INTRODUCTION

The Iowa Department of Agriculture and Land Stewardship (IDALS) is responsible for the development of this Iowa Foot-and-Mouth Disease (FMD) State Response Plan in collaboration with supporting agencies.

The Plan provides guidance and options for the State of Iowa's response to the identification of FMD in North America, in the United States (U.S.), and in the State of Iowa. FMD is a contagious disease of livestock. Globally, it is one of the most important animal diseases, and presents a serious economic threat to U.S. animal agriculture. Although the disease and its response causes loss of animal protein production, the disease is neither a food safety nor public health concern. FMD may enter the U.S. through accidental or intentional actions.

The economic health and well-being of communities in Iowa rely on agriculture. The agricultural industry, including crop and livestock production, is a major contributor to the local and state economy. An FMD outbreak in this country and in the State of Iowa could result in the disruption of animal health, animal welfare, and economic systems of unprecedented national scale. If not quickly controlled, consequences will impact domestic commerce, international trade, livestock and feed production, food security, and consumer confidence. A cascade of negative effects will involve allied entities such as feed manufacturers, livestock markets, processors, renderers, retailers and consumers.

II. PURPOSE

In order for Iowa to detect, contain, and eradicate FMD within its state borders, enormous resources – personnel, equipment, and countermeasures - will be needed to respond.

The purpose of this FMD State Response Plan is to:

- Provide guidance in preparing for, identifying and responding to, recovering from, and mitigating any FMD incursion affecting the susceptible livestock and wildlife in the State of Iowa.
- Encourage collaboration of efforts at all levels to efficiently identify, contain and eradicate the disease, and to facilitate the transition from response to recovery.
- Ensure effective communication between state, federal, and local authorities, responders and the public.

This plan serves as an annex to Emergency Support Function (ESF) #11. ESF #11 provides additional background on Scope, State and Federal Authority, Situation, Assumptions, and Policies applicable to agricultural emergencies in general.

III. SCOPE

This plan is consistent with National Incident Management System, and is based on the Incident Command System. It addresses goals to prevent FMD from entering the State of Iowa, and to minimize the impact of an FMD incident through an efficient and coordinated emergency response. Its intent is to describe the roles and responsibilities of various agencies during an FMD outbreak to enable Iowa, and subsequently the U.S., to regain FMD-free status without the response effort causing more disruption and damage than the disease outbreak itself.

The goals of this Plan are to:

- Provide rapid identification and, when appropriate, depopulation and disposal of infected animals;
- Ensure efficient communication between federal, state, and local responders, authorities, and the public;
- Provide interagency and interstate coordination of response actions;
- Establish policy and procedures to respond to and recover from an FMD incident as quickly as possible; and
- Minimize the impact of an FMD incident.

The objectives of this Plan are to:

- Identify the lead agencies in an FMD response;
- Identify the triggers that result in plan implementation;
- Establish the authority under which this plan can be implemented;
- Identify and define roles and responsibilities of supporting agencies and groups to facilitate response coordination;
- Present the opportunity to use pre-negotiated resource sharing agreements and Mission Ready Packages (MRPs) between states for assistance; and
- Identify the scope of state involvement in recovery.

Authorized by Iowa Code section 163.1 Infectious and Contagious Diseases among Animals, IDALS administers and enforces the provisions for the control of infectious or contagious disease affecting animals within the state. IDALS is the lead state agency with authority and responsibility for livestock disease control and eradication. Legal authority through both the Code of Iowa and Iowa Administrative Code is detailed in ESF #11. Specific authority for the prevention, suppression, and eradication of FMD is addressed in the Iowa Code section 163.51, Subchapter VI Foot and Mouth Disease.

The FMD response decisions will be based on the situation at that time. Strategies will be chosen to best protect Iowa's agricultural industry and the public's common good, and may conflict with competing interests of individuals.

IV. SITUATIONS

The following list of situations may affect the implementation of this Plan. The Emergency Support Function (ESF) #11, to which this plan is an annex, describes additional situations and challenges in the State of Iowa pertinent to agricultural emergencies in general.

Listed here are situations specific to an FMD outbreak. Based on the importance of agriculture in Iowa, identification of FMD in the U.S. will have serious repercussions in this state.

- FMD is a highly contagious viral disease of cloven-hoofed (two-toed) animals (e.g., cattle, pigs, sheep, goats, and deer). (For details, see <http://www.cfsph.iastate.edu/DiseaseInfo/disease.php?name=foot-and-mouth-disease&lang=en> and https://www.aphis.usda.gov/publications/animal_health/2013/fs_fmd_general.pdf)
 - FMD is a disease foreign to North America. Susceptible species in the U.S. include both domestic livestock and wildlife which have no immunity to the virus.
 - The disease is endemic in many parts of the world, including countries not allied with the U.S.
 - FMD may be incorrectly associated with Hand, Foot and Mouth Disease affecting humans. This confusion with a totally unrelated condition is expected to cause unnecessary public health concern. (For more information on Hand, Foot and Mouth Disease affecting humans, consult <https://www.cdc.gov/hand-foot-mouth/index.html>.)
 - In cloven-hoofed animals, the disease causes fever, sores and blisters, and importantly, poor growth and loss of production. Older animals tend to recover, although they may never regain full productivity. Young animals suffer the highest rate of mortality.
 - Because clinical signs of FMD in livestock may mimic signs of other endemic diseases, the recognition, identification, and confirmation of FMD may be delayed.
 - Susceptible animals may be infected and serve as an infective risk to other animals prior to showing clinical signs.
 - At this time (October 5, 2017), it is not possible to prove freedom from FMD infection in a herd or in an individual animal. It is only possible to establish there is lack of evidence of infection.
 - The virus can survive an extended length of time in the environment under certain ideal conditions (dependent on such conditions as temperature, moisture, humidity, sunlight, etc.).
 - There are many types of FMD virus throughout the world, creating a challenge for the development and use of a vaccine.
 - Should FMD infect susceptible wildlife such as deer or feral swine in the U.S., the disease may be impossible to contain and quickly eradicate.
 - Animals which pass ante-mortem and post-mortem inspection by USDA Food Safety and Inspection Service (FSIS) at slaughter are safe for human consumption, even if the animals

may have been exposed to or have recovered from FMD. Products which pass FSIS inspection are able to enter normal commerce.

- Policies and procedures are in place to safeguard the U.S. and the State of Iowa against the introduction of FMD. USDA regulates the importation of livestock into the U.S. Accredited veterinarians inspect livestock to verify health for Certificates of Veterinary Inspection prior to interstate travel within the U.S. Suspected cases of foreign animal diseases are investigated by trained foreign animal disease diagnosticians (FADDs) on a routine basis.
- Animal agriculture in Iowa is approximately a \$10 billion dollar industry ranking number one in swine production, number one in laying chickens, number two in red meat production, number ten in turkey production, and number five in turkey processing. Iowa animal industries contribute to feeding the U.S. and produce significant quantities of meat, milk, and eggs for international export markets. (See ESF #11 for more details of Iowa's agricultural industry.)
- Livestock producers are responsible for the health of their animals and protecting their animals from exposure to disease.
- The United States Department of Agriculture (USDA) Animal and Plant Health Inspections Service (APHIS) Veterinary Services (VS) is the lead federal agency for animal health. USDA APHIS VS provides federal support, and joins the Unified Command when federal support is requested. Federal legal authority through the Code of Laws of the United States of America and the Code of Federal Regulation is detailed in ESF #11.
- At the start of an FMD outbreak in the U.S., there may be federal funding to indemnify producers whose animals are destroyed in order to contain the disease. There is no funding to reimburse producers for animal mortalities from disease, nor compensation for expenses related to hold orders and movement restrictions.
- Ripple effects will negatively affect employment, allied industries such as feed/grain production, and ultimately tax revenues which will strain government services.
- Producers and the public may be unaware of the disease and its impact. The last FMD outbreak in the U.S. was in 1929 with a very different agricultural structure. Current industry production systems will magnify the consequences.
- The size, structure, concentration, efficiency, interconnection, and extensive movement inherent in the U.S. livestock industry will present unprecedented challenges in the event of an FMD outbreak. No country with a livestock industry comparable to that of the U.S. has had to respond to an outbreak of FMD.
- USDA will notify the World Organisation for Animal Health (OIE) of detection of FMD in the U.S. All exports of cattle, swine, sheep, goats, and their uncooked products will be stopped until trading partners recognize the U.S. as being free of FMD. Fluctuations in domestic supply and demand will affect prices.

- Time will be needed for the establishment of a new equilibrium as livestock production, markets, and product demands adjust.
- Guidance documents developed by USDA provide the foundation for a coordinated national, regional, state, and local emergency response to FMD. Information in these resources has been integrated into Iowa-specific plans. (USDA documents available at <https://www.aphis.usda.gov/fadprep>.)
- The media, particularly anti-agriculture groups, may provide inaccurate and counterproductive reports to the public. Correct and timely information needs to be distributed.
- It is expected that response actions will be phased based on the increasing level of threat and probability of FMD being introduced into Iowa livestock.

V. ASSUMPTIONS

The following considerations are assumed to be true in the development of this Plan. These assumptions identify possible limitations to the plan and emphasize conditions that, if found to be false during a response, require contingency planning or other plan implementation adjustments.

- The Governor of Iowa may consider an Emergency Declaration at any time during an FMD response, after weighing the advantages and the disadvantages for the situation at hand.
- If one or more cases of FMD is confirmed in Iowa, a federal-level Declaration of Emergency may be requested; the U.S. Secretary of Agriculture may issue a Declaration of Emergency, which is expected to release funds for federal agencies to provide response assistance, which may include, but not be limited to, funds for vaccine production and supply, and for indemnity of livestock that are depopulated to eradicate FMD. If necessary, it provides USDA some authority over intrastate animal movement.
- No single agency has the full authority or resources to control and contain FMD when more than one premises is infected. Response will involve the cooperative efforts of state, federal and local governments, as well as the agricultural industry and the public.
- Coordination and support for the response will be provided by the Iowa Department of Homeland Security and Emergency Management (HSEMD). Other state and local agencies are expected to contribute resources, personnel and expertise. The coordination of supporting agencies will occur through the State Emergency Operations Center (SEOC).
- The response will be guided by the Iowa FMD State Response Plan, in addition to federal plans as described in the Foreign Animal Disease Preparedness and Response Plan (FAD PRoP) manuals (<http://www.aphis.usda.gov/fadprep>).

- The response will involve a Unified Command of state and federal agencies exercising their authority and sharing resources to plan and implement the response.
- Ongoing surveillance for all foreign animal diseases (FADs) is conducted by state and federal animal health officials. Investigations of possible FADs are conducted by trained FADDs consistent with procedures described in *VS Guidance Document 12001.2 - Policy for the Investigation of Potential Foreign Animal Disease/Emerging Disease Incidents (FAD/EDI)*. (Access at https://www.aphis.usda.gov/animal_health/lab_info_services/downloads/VSG_12001.pdf.)
- Initial reports of suspected cases of FMD may come from producers, private practicing veterinarians, university extension agents, employees of livestock markets or slaughter facilities, diagnostic laboratories, and state or federally employed veterinarians. Iowa animal health officials will receive reports of FMD identified in North America or in the U.S. from USDA officials. Reports of potential FMD in Iowa are made to state and federal animal health officials, who deploy an FADD to conduct an investigation.
- Based on the highly contagious nature of disease, the lack of immunity in susceptible animals in the U.S., and the risk of spread by movements (animals, people, vehicles and other items), many animals and multiple premises are expected to be exposed to the FMD virus. The normal level of biosecurity implemented on most farms may be inadequate to protect herds.
- Producers whose livestock become infected or need to be depopulated to halt the spread of disease are not expected to be made whole through indemnification. Federal funds for an indemnity program may quickly be exhausted.
- There will be a time interval before diagnostic test results are available. Testing for FMD is conducted by the National Animal Health Laboratory Network (NAHLN). Initial confirmatory diagnostic testing is conducted at the designated National Veterinary Services Laboratory (NVSL) Foreign Animal Disease Diagnostic Laboratory (FADDL). In Iowa, subsequent diagnostic tests are conducted by the NAHLN laboratory, the Iowa Veterinary Diagnostic Laboratory located at Iowa State University in Ames. There is no beside-the-animal diagnostic test to conduct on-site.
- The NAHLN has developed surge capacity to run diagnostic tests necessary to determine the extent of the outbreak, and to help re-establish freedom from FMD for international trading partners, once the disease is eradicated.
- If FMD is reported in North America, Iowa may impose a temporary stop movement order to prevent the initiation of new movements. Livestock vehicles currently in transit will be allowed to proceed to their intended destination. The order may be lifted once disease surveillance provides data on the scope and location of the disease, and the level of risk can be assessed.
- Stop movement orders, even if the order is temporary, will place a burden on producers to maintain animal welfare for those healthy animals that cannot be moved. Producer costs will be incurred. Healthy animals may need to be euthanized for animal welfare reasons.

- Tracing of disease to determine the origin and spread within a herd(s) is conducted by animal health authorities on a routine basis. These same procedures will be utilized during an FMD response, but expected to be conducted on a larger scale than seen in a program disease.
- The strategy to eradicate the disease through depopulation (stamping-out) will be limited by functional capacity, environmental concerns with carcass disposal, as well as public resistance and perception.
- An FMD incursion in the U.S. will create an extended disruption, even if only a few animals or a few premises are identified as positive. Officials and responders need to be prepared for an extended response and deployment.
- Both state and federal resources to support the response may be limited. Response strategies will change based on available trained personnel and countermeasures (vaccine). Federal funding will be needed to help stop the spread of disease.
- In a rapidly spreading FMD outbreak, federal, state, and local resources for responding will be quickly overwhelmed. Personnel shortages for implementing biocontainment on farms, performing disease surveillance, depopulating exposed herds, and disposing of infected carcasses will limit efforts to contain the disease.
- To assist in the response, it may be possible to hire temporary employees to provide surge capacity for personnel.
- Qualified licensed veterinarians may voluntarily join the state response as surge capacity. A registered member of an emergency response team who acts under the authority of the secretary shall be considered an employee of the State of Iowa for purposes of defending a claim on account of damage to or loss of property or on account of personal injury or death under chapter 669. The registered member shall be afforded protection under section 669.21. The registered member shall also be considered an employee of the state for purposes of disability, workers' compensation, and death benefits under chapter 85. (Source: Iowa Code section 163.3A)
- As of October 5, 2017, there is insufficient FMD vaccine to immunize all livestock at risk. If a vaccine match to the specific virus causing the outbreak is available, it will require weeks to months to produce/obtain the volume of vaccine needed.
- If FMD cannot be contained, infected herds may be quarantined until animals recover. It may take months before the risk for further spread of FMD is low enough to release the quarantine. During infection, herds are expected to lose condition. Some animals are expected to succumb to the disease. Not all animals are expected to regain prior health. Producers will experience economic losses from decreased production and loss of markets.
- There may be a mental health impact in Iowa communities for those whose livestock are affected by FMD, for those whose employment has been affected by the situation, and for those with misunderstandings about food safety and public health.

- Plans for long term recovery are in development. Negative economic impacts are probable.

VI. CONCEPT OF OPERATIONS

This section describes general actions needed to ensure an effective, coordinated response. It does not replace or supersede specific agency protocols and procedures. Actions described in this section to protect Iowa livestock are guidance only. Response to FMD identified in North America, in the U.S., or in Iowa will each pose specific challenges. Decisions on strategy and tactics will be dependent on the situation.

Strategies for the response to, and management of, an FMD outbreak will change as the outbreak progresses. Actions will depend upon the characteristics of the outbreak, such as the magnitude and location, and on the availability of vaccine and other resources. Consult **Attachment 2** for a summary of the potential expanding scope of an FMD outbreak. (For a full description, see *Classification of Phases and Types of a Foot-and-Mouth Disease Outbreak and Response* at https://www.aphis.usda.gov/animal_health/emergency_management/downloads/phases-and-types-of-an-fmd-outbreak_2013.pdf.)

A goal will be to regain FMD-free status (either with or without vaccination) in order to resume exportation of animals and animal products. The internationally accepted standards for regaining FMD-free status are found in the *World Organisation for Animal Health (OIE) Terrestrial Animal Health Code (TAHC)* (<http://www.oie.int/international-standard-setting/terrestrial-code/access-online/>).

Incident Identification

A report of a potential FMD incident in Iowa may come from government employees, laboratories, private veterinary practitioners, university extension agents, livestock producers, or the public based on clinical signs or laboratory results consistent with the disease. Notification may also occur through trace-out investigations or movement records from Infected Premises outside of the State of Iowa. Expedient investigation and rapid detection is critical to contain an outbreak.

- Notification of a potential FMD incident will be reported to the Iowa State Animal Health Official and/or federal counterparts.
- Once notified, ensuing actions by the State of Iowa are based on such things as the nature of the report, geographic/jurisdictional location, domestic or wildlife species, and livestock production system involved.

- A report of FMD in wildlife species will activate a response by state and federal agencies with jurisdiction over wildlife. IDALS will collaborate and take actions to protect livestock, investigate the existence of FMD in livestock, and communicate the risk to producers so that they take precautions against exposure.
- Reports of suspicion of FMD involving livestock in multiple locations may suggest an epidemiological link, or an intentional introduction of disease. Possible intentional introduction will be reported to law enforcement authorities at all levels, including the USDA Office of the Inspector General and the Federal Bureau of Investigation.
- If FMD is identified in the U.S., but outside of Iowa, Iowa will take precautionary measures to prevent FMD from entering the state.

Identification and Confirmation of FMD virus

Procedures are in place in Iowa to rapidly investigate, identify, test, and confirm an FMD positive animal. Confirmation of one animal as being infected with FMD results in identification of the herd as being infected, and the premises being identified as an Infected Premises.

- In response to the first report of suspicion in Iowa, a trained FADD will be dispatched to investigate. Depending on the likelihood of a positive case, a veterinary team may be deployed to initiate containment, implement biosecurity, and evaluate options for depopulation and disposal. (See *VS Guidance Document 12001.2 - Policy for the Investigation of Potential Foreign Animal Disease/Emerging Disease Incidents (FAD/EDI)*.)
- Diagnostic samples may be taken by the FADD and sent to the designated Foreign Animal Disease Diagnostic Laboratory (FADDL) for confirmation. A second set of the same samples may be delivered to the Veterinary Diagnostic Laboratory at Iowa State University, a member of the NAHLN for preliminary testing.
- During an on-going event, diagnostic samples from subsequent suspected FMD cases in Iowa, as well as general surveillance samples, may be submitted to the NAHLN Lab at Iowa State University for testing.
- Control and containment activities will be initiated based on the likelihood or confirmation of an animal infected with FMD.

Initiation

As part of the FMD investigation, containment (quarantine, movement controls, and biosecurity), and tracing activities are initiated and continue throughout the response. Confirmation of FMD in Iowa initiates a cascade of response activities intended to contain and eradicate (stamp-out) the disease. Additional resources will be needed in support. Actions are taken to determine situational awareness and extent of disease spread. In addition, efforts of government and the livestock industry focus on protecting non-infected animals and maintaining continuity of business for unaffected premises. Multiple activities occur at once; the sequence is not intended to imply level of importance or timeframe of implementation.

- IDALS notifies the appropriate agencies of presumed and/or confirmed cases, including Iowa HSEMD and the Governor's Office (See **Attachment 1. Notification List for Iowa State Agencies** is currently in development).

- IDALS forms a Unified Command with USDA.
- Quarantine based on state authority will be imposed on the premises, restricting movements on and off of the property. Quarantine will be lifted based on the current situation and status of the disease outbreak.
- Biocontainment measures are immediately implemented at the quarantined site. Only essential movements may be allowed on and off of the premises via movement permits after full compliance with all quarantine protocols. All animals remain under quarantine until quarantine is lifted, or movement is authorized by specific permit.
- Epidemiological tracing to identify the source and potential spread of disease will be based on interviews as well as information including, but not limited to, the producer's records on animal purchases, sales, and movements of animals, people, vehicles, equipment and other fomites.
- When the investigation determines a strong suspicion of FMD, or when FMD is confirmed by laboratory result, outside resources may be necessary. Requests for local, state and federal resources may be made according to established protocols.
- The Iowa HSEMD will notify local emergency management agencies in the affected area. Local emergency management and local officials will follow the direction from HSEMD.
- One or more Control Areas will be established around Infected Premises. Movement controls will be implemented, guided by APHIS FAD PReP resources. Disease Control Areas, Zones, and Premises designations are expected to change over the course of the response as the incident and affected locations change.
- IDALS may implement movement controls and restrictions on certain animals and animal products entering, leaving, or being transported within the State of Iowa. Decisions will be based on the best available testing to determine FMD status.

Incident Management

Coordination and support mechanisms to manage the response are based on the Incident Command System (ICS). The structure of the organization will follow ICS principles, including chain of command.

- IDALS remains the lead state agency for animal health and leads the response to livestock disease. Representative(s) of USDA as the federal lead agency serve in the Unified Command. Support agencies are identified in Iowa's Emergency Support Function #11 and later in this plan.

- IDALS may activate a Departmental Operations Center (DOC) from which internal program staff will coordinate and support the control and containment activities. IDALS may request Iowa HSEMD to activate the State Emergency Operations Center (SEOC) and assist in coordination of supporting state agencies in accordance with the Iowa Emergency Response Plan. Decisions will be based on the scope of the incident, resource needs, and areas of authority.
- Requests to USDA for federal support including personnel and countermeasures from the National Veterinary Stockpile (NVS) may be made through the USDA Assistant Director (AD) for Iowa.
- All agencies will respond based on their own capabilities. Each agency retains authority over its own resources. Agency-specific standard operating procedures may guide response actions.
- Data management systems such as APHIS Emergency Management Response System (EMRS) 2 will be utilized to enhance situational awareness, to collect, maintain, track, filter, assess, and share data. EMRS2 is the system of record to support the disease investigation and the movement permitting system.
- Locations of premises will be identified by Premises Identification Numbers (PIN) for those premises registered with IDALS and/or USDA.
- Priority will be given to responder safety, public safety, preservation of property, and mitigation of the disease.

Defining Response Actions

This general description of actions provides options that may be available to the state to respond to and mitigate an FMD incident. Decisions pertaining to strategy and tactics will be based on an evaluation of need and benefit, resources available, practicality, and the specific circumstances, and implemented according to agency protocols. In an extensive outbreak of FMD, the highest priority is to ensure a secure food supply for the nation by ensuring business continuity for unaffected food animal producers and all associated industries.

Depending on the situation, response actions may include:

- Disease surveillance to detect new cases, and the re-establishment of FMD-freedom for international trade opportunities. Data collected will support planning and response decisions. Surveillance methods include, but are not limited to:
 - Epidemiological questionnaires
 - Serological surveillance (laboratory detection of antibodies)
 - Virological surveillance (laboratory detection of virus)
 - Active observational surveillance and periodic inspection of animals for clinical signs.

- Containment activities such as:
 - Quick investigation and identification of new and suspected cases of FMD.
 - Temporary stop movement orders until information provides additional confidence on the extent of the outbreak.
 - Quarantine of Infected Premises, Contact Premises, and Suspect Premises until the infectivity of animals and the environment poses negligible risk to other non-infected livestock.
 - Establish security to prevent unauthorized movement that may spread FMD.
 - Biosecurity protocols for authorized movements within the Control Area.
 - Biocontainment protocols to prevent the spread of disease off of contaminated premises.
 - Movement controls to prohibit the movements that may pose a high-risk for the spread of FMD.
 - Depopulation of animals infected with or possibly exposed to FMD, when this response strategy is possible.
 - Disposal of contaminated carcasses and materials using methods that prevent the spread of disease and protect the environment.
 - Vaccination when appropriately matched vaccine is available in adequate quantities and approved by appropriate decision-makers to improve immunity of susceptible animals, suppress new cases of disease, and minimize virus production.
 - Utilize the best available testing to determine FMD status of susceptible animals to guide decisions on containment of disease.

- Establishment of a permitting system to approve or deny requests pertaining to the types of movements that could contribute to the spread of FMD. To be eligible for a movement permit, specific criteria will be required to ensure negligible risk. Permits may be required to transport certain animals and/or products into, out of and within Iowa. The approved movements are documented and tracked in the system.
- Collaboration with support agencies and the livestock industry to most effectively utilize authorities and available resources.
- Implementation of a long term eradication program in concert with APHIS once containment of the FMD outbreak through depopulation and disposal is no longer effective. It is anticipated such a program would involve testing, slaughter, movement controls, and quarantine. This program would include provisions intended to protect uninfected animal populations from FMD exposure, and allow those populations with no evidence of infection to continue movements to market.
- Participation in the Secure Food Supply Plans, as appropriate (<http://www.cfsph.iastate.edu/Secure-Food-Supply/index.php>).
- To the extent possible, management strategy and actions guided by *APHIS Foreign Animal Disease Framework: Response Strategies (FAD PReP Manual 2-0)* (https://www.aphis.usda.gov/animal_health/emergency_management/downloads/documents_manuals/fadprep_manual_2.pdf) and *APHIS Foot-and-Mouth Response Plan (The Red Book)* (https://www.aphis.usda.gov/animal_health/emergency_management/downloads/fmd_responseplan.pdf).

Communication and Coordination

The objectives of communication during an FMD response include:

- Facilitate a coordinated, efficient emergency response at all jurisdictional levels;
- Furnish accurate, timely, and consistent information and situational awareness;
- Maintain credibility and produce public confidence in the response activities; and
- Dismiss rumors, inaccuracies, and misperceptions in a timely manner.

Effective communication between lead and supporting agencies, other jurisdictions, and the private sector will include:

- Implementation of IDALS' Communication Plan to quickly address the information needs of a broad audience.
- Close coordination and information sharing between IDALS, USDA, HSEMD, and the Governor's office. IDALS will have regular conference calls to gather situational awareness in other states. Iowa legislators will be briefed as needed.

- Maintenance of internal communication to coordinate policy with supporting agencies through the Notification List (in development) and the provision of timely information to executive-level representatives of supporting state agencies.
- Incident Action Plans that provide pertinent information to responders, including those in the field.
- Utilization of APHIS EMRS2 as the system of record to manage information related to livestock disease investigation and movement permits.
- Implementation of a Joint Information Center (JIC) to develop and deliver messages appropriate to a variety of audiences to address their need for knowledge and their concerns. The JIC may include representatives from supporting agencies, including USDA and the Governor's office.
- Notice of confirmed FMD being communicated to affected livestock industries, including zoos and other facilities holding wildlife susceptible to FMD, to encourage them to take protective measures. Resources to access the most current movement restrictions will be provided. Communication may be through their groups and associations.
- Maintenance of communication with producers through industry associations and through producer groups to include information about the nature of FMD infection, measures to be taken to protect their herds, general location/scope of the disease, procedures to request movement permits, and how to access additional details.
- Continued communication with the public concerning the status of the FMD outbreak, response efforts, public health and food safety. Communication may include electronic messaging, radio transmission, telephone and conference calls, press releases, media interviews, educational web sites, and social media, as well as public messaging through the IDALS' and USDA's Public Information Officers (PIOs) in collaboration with the Joint Information Center (JIC).
- If resources are available, a hot line may be implemented to receive and help direct questions to the appropriate resources.

Recovery

All efforts on the response are focused on recovery. It is anticipated, even if few animals and/or few premises are involved in an FMD incident in the U.S., the response may take weeks to months, and the recovery – particularly regaining FMD-free status and re-establishing animal exports – may take years.

If FMD is successfully eradicated in a short period of time, with or without vaccination, disease surveillance and monitoring susceptible animals during the recovery phase will involve diagnostic testing procedures. Susceptible animals include wildlife, therefore monitoring will involve a coordinated effort with those state and federal agencies with jurisdiction and responsibility for wildlife.

If one of the vaccination strategies is employed, a 'DIVA' (differentiating infected from vaccinated animals) vaccine should be used. Diagnostic tests would be able to determine if the animal had been vaccinated or infected with the field strain of the circulating virus. This difference is important for the FMD status of the country as determined by the World Health Organisation (OIE) and our international trading partners. Differing timeframes are used for OIE to recognize FMD-free without vaccination and FMD-free with vaccination.

If it is necessary to institute a long-term disease eradication and/or control program, industry input will be needed to face the challenge of multi-species involvement. Such a program will involve surveillance and monitoring activities, biosecurity measures, pathogen reduction and elimination strategies such as use of vaccination, cleaning and disinfecting, or other scientifically supported control methods.

Aside from re-establishing trade, domestic livestock production will take time to return to pre-disease levels. Some infected animals may never return to full production. Fluctuations in supply and demand for animals and animal products will affect prices and producer incomes. During the response, the Secure Food Supply Plans are expected to facilitate the continuity of business for producers whose herds have no evidence of infection.

Associated industries will be impacted if livestock producers go out of business, if feed and grain suppliers lose customers, if packers cannot maintain their supply of animals to harvest, and communities, especially rural communities that rely on agriculture, are impacted by unemployment.

Decisions made during an FMD response may be able to mitigate negative impacts and hasten recovery.

VII. PRINCIPAL PARTIES

State – Lead Agency

- Iowa Department of Agriculture and Land Stewardship (IDALS), (in Unified Command with USDA)

State – Supporting Agencies

- Office of the Governor
- Iowa Department of Homeland Security and Emergency Management (HSEMD)
- Iowa Department of Inspections and Appeals (DIA)
- Iowa Department of Public Health (DPH)
- Iowa Department of Natural Resources (DNR)
- Iowa Department of Public Safety (DPS)
- Iowa Department of Transportation (DOT)
- Iowa Department of Human Services (IDHS)
- Iowa Department of Administrative Services (DAS)
- Iowa National Guard
- Iowa Board of Regents: including State Universities, Iowa State University Extension, Iowa State Veterinary Diagnostic Laboratory, State Hygienic Laboratory at the University of Iowa
- Iowa Attorney General's Office
- Iowa Department of Workforce Development
- Iowa Finance Authority

Local

- County Emergency Management
- Local Elected Officials
- Local Law Enforcement
- Local Public Health
- Local Fire Department
- Local Emergency Medical Services

Private Sector

- Livestock Industry Associations
- Producer Trade Groups
- Packer/Processors
- Crops/Feed Groups
- Retail Food Groups
- Financial Institutions

Federal

- United States Department of Agriculture (USDA) (In Unified Command with IDALS)
 - Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS)
 - Animal and Plant Health Inspection Service (APHIS) Wildlife Services
 - Food Safety and Inspection Service (FSIS)
 - National Veterinary Services Laboratory (NVSL)
- Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA)
- Department of Health and Human Services
 - National Veterinary Response Team (NVRT)
 - Cadre within the National Disaster Medical System (NDMS)
- Federal Bureau of Investigations (FBI)
- Department of the Interior (DOI)
 - U.S. Fish and Wildlife Service
- U.S. Department of Labor (DOL)
- Centers for Disease Control and Prevention (CDC)
- U.S. Food and Drug Administration (FDA)

VIII. ORGANIZATIONS AND ASSIGNMENT OF RESPONSIBILITIES

The Iowa Department of Agriculture and Land Stewardship (IDALS) has primary responsibility in response to livestock disease that may threaten the state.

Depending on the scope of the disease outbreak and based on the authorities clarified in the ESF #11, IDALS may request through HSEMD additional agencies to provide resources for the response. FMD response planning is based on supporting agencies' capabilities to provide personnel, equipment, and supplies to the best of their abilities in support of all goals described in this plan. Requests for other entities to assume their responsibilities to provide support, specifically related to an emergency response to FMD, will be made. Supporting agencies shall not self-deploy.

Primary State Agency

Iowa Department of Agriculture and Land Stewardship (IDALS)

Uses its authority as primary state agency with responsibility for protecting animal health, to lead the effort to:

- Contain and control the spread of FMD, including such actions as quarantine, regulate movement, establish biosecurity standards and procedures, decontaminate, access private property, examine private records, depopulate, dispose of contaminated materials, and impose civil penalties as may be related to animal health. Provide personnel, equipment, and supplies in support of all goals described in this plan.
- Provide immediate notification to the Office of the Governor, either directly or through HSEMD, of any of the following events: a confirmed FMD diagnosis in the United States, Canada, or Mexico; a presumptive FMD diagnosis in Iowa; and/or a confirmed FMD diagnosis in Iowa.
- Provide timely communication to the Office of the Governor, either directly or through HSEMD, when it appears likely that IDALS resources will no longer be adequate to cope with an FMD outbreak in Iowa.

- In accordance with the Incident Command System, establish command and control in coordination with USDA and key stakeholder agencies that can function as an integrated organizational structure equal to the complexity and demands of the incident.
- Quarantine Infected Premises, Contact Premises, and Suspect Premises until the animals and the premises environment are determined to represent minimal risk for the further spread of FMD.
- Collect records and data from livestock collection points such as livestock markets and packing plants of animals received over the preceding weeks that may have had exposure to FMD (dangerous contacts) or originated from high-risk locations.
- Conduct epidemiological investigations to detect potential FMD spread into Iowa, such as searching Certificates of Veterinary Inspection (CVIs) and Swine Health Agreement records.
- The Secretary of Agriculture may review and relay proposals to the Office of the Governor to approve all restrictions involving people or any property that is not an animal or an animal product. The Secretary will present these proposals to the Governor either directly or through HSEMD. Upon receiving concurrence from the Secretary and the Governor, a restrictive quarantine order on all approved areas may be imposed.
- Notify the Office of the Governor of quarantined premises/areas, and changes to these quarantined premises/areas as restrictions are imposed or lifted.
- Provide an individual to serve as part of the Unified Command.
- Establish contact with state and federal agriculture officials to maintain an accurate situational awareness of the FMD outbreak and response nationally.
- Ensure an information management system, such as EMRS2, is established to collect, filter, and share FMD-related surveillance and detection information.
- Maintain a contact list of key personnel, departments, agencies, organizations, and resources that may be called upon to support the emergency response.
- Implement and enforce modified inspection standards for operations and procedures in effect in state-inspected packing plants to detect evidence of FMD in animals presented for slaughter.
- Through HSEMD, solicit resources from surrounding states including technical assistance, personnel, equipment, and supplies when state resources have been exhausted.

- Maintain accurate and timely internal as well as external communication concerning the status of the FMD outbreak and response efforts. Communication may include electronic messaging, radio transmission, telephone and conference calls, press releases, media interviews, educational web sites, and social media, as well as public messaging through IDALS' and USDA's Public Information Officers (PIOs) in collaboration with the Joint Information Center (JIC).
- In conjunction with DPH, develop and implement a public information and education campaign for the purpose of maintaining and/or re-establishing consumer confidence in meat and dairy products.
- When an FMD case has been confirmed in North America inform affected livestock industries, including zoos and other facilities holding wildlife susceptible to FMD, to encourage them to take protective measures. Communication may be through their groups and associations.
- In conjunction with HSEMD, track resources that are committed, deployed, staged, and available. If necessary, request the National Veterinary Stockpile countermeasures and contracting services through USDA.
- Implement an emergency livestock vaccination program which is consistent with the national vaccination policies in effect at the time.

State Veterinarian (IDALS)¹

- Provide state-level direction, leadership, and technical expertise to detect, contain, and/or eradicate an FMD outbreak in Iowa as described under IDALS' responsibilities (above).
- Coordinate with HSEMD when the first FMD case is confirmed in North America, and at such time as appropriate, request a State of Emergency Proclamation from the Governor's Office.
- Request that HSEMD activate the SEOC.
- Maintain current communication with state officials from each state/area with a confirmed FMD case and with contacts at USDA APHIS VS, including the USDA VS Assistant Director (AD) for Iowa.
- Deploy IDALS personnel to assist in administration of the response and to implement and/or oversee containment and eradication activities.
- With the approval of the Secretary of Agriculture, order a prohibition on the importation of animals or animal products into Iowa. This action may be temporary in order to assess the initial scope of the incident.
- Maintain communication with laboratories to aid in diagnosis of case submissions suspected of being positive for FMD.
- Collaborate with DNR to assess and mitigate the risk of FMD transmission involving wildlife, particularly in the vicinity of the Control Area (e.g., deer, scavengers).
- Consider the implementation of vaccine control measures, in consultation with the AD for Iowa and in accordance with the national policies currently in effect.

¹ Although the State Veterinarian is an IDALS employee, the assigned actions for this position are listed separately because of the central role of the State Veterinarian in the implementation of this plan. Some of the actions assigned to the State Veterinarian are similar to activities that the department performs on an ongoing basis to discharge statutory obligations, comply with established policies, and cope with situations routinely encountered. This is particularly true of those actions associated with the prevention and/or surveillance, detection, and eradication of livestock disease.

- With the assistance of the AD for Iowa, seek recovery assistance through USDA, Farm Service Agency, and other designated and appropriate USDA agencies. Assistance may be in the form of low interest loans or grants to restock herds, depending on what is authorized at that time.

Supporting State Agencies

Requests to supporting state agencies for assistance may include, but not be limited to, the following.

Office of the Iowa Governor

- Issue a State of Emergency Proclamation to effect the powers as granted in the Iowa Code, Chapter 29C Emergency Management and Security making state resources and emergency powers available for the purpose of preventing, detecting, containing and/or eliminating an FMD outbreak within Iowa as quickly, effectively, and humanely as practicable.
- Receive and, as deemed appropriate, respond to requests for assistance by the Iowa Secretary of Agriculture, other state agencies, and local governments by providing personnel, equipment, and supplies under the control of the executive branch.
- Take all actions necessary to seek resources and assistance from other states and/or the federal government and/or non-governmental entities if state and local resources have been overwhelmed.
- Assist the citizens of the state to recover from the effects of the outbreak.
- Review, and then approve, deny, or seek additional information on all quarantine area proposals received from the Secretary of Agriculture that affect people or any property that is not an animal or an animal product.

Iowa Department of Homeland Security Emergency Management (HSEMD)

- Based on the location and magnitude of an FMD outbreak, prepare a State of Emergency Proclamation appropriate to the circumstances and send to the Office of the Governor for approval and signature.
- Alert ESF #11 supporting state agencies of potential activation and task state agencies (and/or volunteer organizations) to provide personnel and/or equipment to assist with prevention, control, and recovery from an FMD outbreak.

- If requested, activate the SEOC and notify the contacts from all state agencies included in this plan that an agency representative either should report to the SEOC, or prepare to do so in the near future.
- In consultation with IDALS, provide timely communication to the Office of the Governor, including preparation and delivery of situation reports and notification of state resources being overwhelmed.
- Identify sources of personnel, equipment, and supplies needed for response activities.
- Coordinate state requests for assistance from non-USDA federal agencies such as FEMA, unless USDA develops federal-to-federal agreements. State requests for federal assistance may involve community disaster recovery efforts and other programs under the Stafford Act.
- Utilize the Emergency Management Assistance Compact (EMAC) to request assistance from other states.
- In conjunction with IDALS, establish a Joint Information Center (JIC) and support the communications efforts to develop and distribute emergency information to the producers, the public and the media in accordance with the Iowa Emergency Plan.
- As conditions warrant, expand the engagement of the SEOC to accommodate additional state agency personnel, federal personnel, and/or private industry personnel.
- Provide or coordinate the use of alternate communications capabilities and emergency public notification systems in support of FMD response and recovery efforts.
- With the assistance and technical expertise of the State Veterinarian, IDALS employees, and additional personnel, establish and staff a hotline for responding to public inquiry, with the hours of operation to be determined and then publicized.

Department of Inspections and Appeals (DIA)

- Investigate reports and address questions of food safety and food recalls of products under the agency's jurisdiction involving state-licensed food processing facilities and food warehouses, food service and retail establishments, groceries and restaurants.
- Provide personnel to assist in epidemiological investigations, data management, and data analysis.

Department of Public Health (DPH)

- Provide consultation to Safety Officers and responders on human related health and environmental exposure concerns.
- Provide public health information about FMD to consumers of meat, dairy, and other food products to alleviate unfounded food safety and public health fears, thereby reducing unnecessary economic disruption. Information may be delivered through multiple channels such as print, web, news releases, social media, media interviews, and providing public health scripts to be used in a statewide public call center.
- Upon request, provide assistance with the delivery, maintenance and distribution of the NVS supplies (potentially using Strategic National Stockpile distribution system).
- Advise the Office of the Governor and Unified Command about the public health impacts of the disaster.
- Upon request, provide personnel to augment IDALS capabilities such as perform epidemiological investigation, document results of tracing, and assist with data management.
- Provide an individual to serve in the Joint Information Center.

Department of Natural Resources (DNR)

- Collaborate with IDALS and federal agency counterparts to assess and mitigate the risk of FMD transmission involving wildlife, particularly in the vicinity of the Control Area (e.g., deer, scavengers). Assessment and mitigation may include but is not limited to surveillance (road kills, hunter harvest) and depopulation of deer.
- Provide guidance including on-site technical assistance to ensure that all disposal methods comply with environmental regulations and requirements to protect Iowa's surface water, groundwater, and air quality.
- Identify potential disposal sites for animal carcasses and other debris including environmentally suitable locations for burial and available permitted landfills. This may include public land, if necessary.
- Advise on trench construction for burial. Develop solid waste acceptance criteria for landfills approved and willing to accept animal carcasses.
- Contact potential sources of carbon (e.g., wood chips, hay, straw, corn stover) that can be used for composting animal carcasses and issue variances to facilities to expand their wood-chipping capacity.
- Should incineration become necessary for disposal of carcasses and other debris, contact potential sources of accelerant and fuel options and provide advice on efficiency and environmental impact.
- Seek approval from the Office of the Governor and the appropriate federal regulating agencies to temporarily waive environmental restrictions to allow for timely and efficient disposal of livestock carcasses.
- Provide geographic information system (GIS) mapping capability to locate disease control areas and zones, registered premises, at-risk premises, and premises affected by FMD (Infected, Contact, and Suspect Premises), and information on topography and water tables.

Department of Public Safety (DPS)

- Provide security protection for the safety of responders.

- Enforce quarantine, containment, and restrictions on the movement of livestock, meat, and related products, equipment and vehicles as imposed by the Secretary of Agriculture, and with the Governor's order, enforce restrictions affecting people or any property that is not an animal or an animal product. Enforcement may be necessary at Iowa's state borders or within Iowa's borders as requested by local law enforcement.
- Provide security and escort for the National Veterinary Stockpile, if requested.
- Investigate any suspicion of criminal activity related to intentional spread of FMD. Support the Federal Bureau of Investigations (FBI) in investigations of terrorism.
- Assist in the coordination and transportation of suspected diseased tissue samples to an appropriate diagnostic laboratory.
- Provide additional communication resources.
- Support the response efforts of local law enforcement, when requested.

Iowa Department of Transportation (DOT)

- Provide transport vehicles and assist with the transportation of soil, water, carcasses, or debris.
- Identify potential sources of outside transportation assistance (i.e., contractors, equipment sources, etc.)
- Provide guidance and personnel for re-routing of traffic in and around the affected area(s), if requested.
- Provide technical assistance on truck/hauling weight limits on proposed transportation routes, particularly for disposal activities.
- Coordinate the restriction of airspace over sensitive areas with private operators, local government, and the Federal Aviation Administration.
- Provide personnel to assist with staging of equipment and managing warehoused supplies.

- Assist with traffic flow and education of the driving public. Create and place signage to provide information to support quarantine and other movement control restrictions. Provide additional traffic control devices for law enforcement to use in the quarantine areas or detours.
- Inspect commercial vehicles for livestock, meat and other produce, agricultural equipment, and other items covered under restrictions and prohibitions invoked or established in response to an FMD outbreak. Enforce restrictions as appropriate.

Iowa Department of Human Services (IDHS)

- Provide support services to affected individuals, families, and businesses including, but not limited to, making critical incident stress management resources available for responders, activating the Disaster Behavioral Health Response Team to provide crisis counseling and support groups for community members, participating in community briefings, and posting information on the IDHS web site about available resources.
- Administer the Supplemental Nutrition Assistance Program (SNAP) during recovery, as needed (see Iowa Emergency Recovery Plan).
- Contribute to the development and release of public information to minimize the level of stress suffered by the Iowa communities.

Iowa Department of Administrative Services (DAS)

- Contract for services, equipment and supplies necessary as part of the finance and administrative function in support of the emergency operations.
- Maintain vendor lists, including emergency contact information, for potential private sector providers of critical disaster-response-related resources.
- Provide vehicle allocation response activities, when possible.

Iowa National Guard

- If activated by the Governor, provide personnel, equipment, and supplies in support of all goals described in this plan, as directed by the Governor.
- Provide incident security, containment, quarantine, movement controls, and traffic control assistance.
- Provide locations for Incident Command Posts, as needed.
- Provide support within the mission and capability of National Guard. This may include advisory and/or technical roles, supervision of response teams in the field, or performing response tasks.

Iowa Board of Regents: including State Universities, Iowa State University Extension, Iowa State Veterinary Diagnostic Laboratory, State Hygienic Laboratory at the University of Iowa

- Provide representatives to participate in the JIC and the SEOC to assist in the development and distribution of technical and public information concerning FMD and the response.
- Serve as an information source by assigning university subject matter experts, including County Extension Agents, to educate veterinarians, responders, producers, commodity groups, farm organizations, allied industries and agri-businesses, professional associations, consumers, community members, and the general public on FMD, the ongoing response, protective measures for livestock, reporting requirements, food safety, and other issues of public concern.

- Utilize a variety of communication methods, including meetings, video-conferencing, conference calls, media interviews, print and radio, web sites, bulletins, and others for outreach into the community.
- Assist with Just-in-Time training of responders on FMD and response activities such as biosecurity, cleaning and disinfection, depopulation, disposal, and personal protective equipment.
- Assign technical specialists to the response to fill advisory roles on tactics.
- Prepare personnel who staff the Iowa Concern Hotline to respond appropriately to FMD-related questions and concerns. Iowa Concern Hotline provides toll-free, 24 hour-a-day, 7 day-a-week confidential assistance and referral for stress, legal questions and financial concerns for Iowa families in times of crisis and change.
- Provide and assist in identifying local resources, including equipment, personnel, and meeting locations, that may be needed during a response.
- Provide laboratory services for FMD diagnostic testing at Iowa State University Veterinary Diagnostic Laboratory in cooperation with USDA's NAHLN laboratories and NVSL. Laboratories must be prepared for the surge capacity that may be necessary in an FMD outbreak and recovery.

Iowa Attorney General's Office

- Provide legal counsel to IDALS and supporting state agencies pertaining to response activities.
- Protect farmers from fraudulent activities during and following an emergency response.

Iowa Department of Workforce Development

- Monitor unemployment insurance claims within the affected counties and providing assistance to those who qualify.
- Research and continuously monitor the local economies that are affected by the FMD outbreak for any implications that could arise when the workforce begins to be displaced. These implications are communicated to other state agencies actively responding to the outbreak.

- Conduct unemployment insurance informational meetings within affected counties.
- Provide technical assistance on worker safety and health issues through Iowa OSHA.

Iowa Finance Authority

- Monitoring the housing market within the affected counties to gauge need for rental units and mortgage assistance.
- Providing housing data as available to HSEMD for situational awareness.

Supporting Local Government Agencies and Private Sector

Local Government

- By working with HSEMD, contribute to disease containment and eradication through the identification and assistance in procurement of resources available locally within the community.
- Use knowledge about the community to respond to requests for resources. Examples of potential requests are listed in **Attachment 3. Role for Local Government and Emergency Management in an Animal Health Emergency.**

Private Sector

- Be responsible for preventing the spread of FMD by protecting their assets and company systems from the introduction of, or exposure to, the FMD virus. This includes protecting livestock, transportation vehicles, employees, production and/or processing facilities.
- Should exposure to FMD virus occur, limit the potential spread of disease to neighbors or elsewhere. This may include such actions as restricting movement, cleaning and disinfection, and destruction of some assets.
- Under special circumstances, the private sector may be requested to cooperate in accepting animals with known exposure to FMD for processing, depopulation, or disposal as a method to contain spread of the disease. Such requests would include plans to restore the business to normal operations.
- As livestock producers, develop individual plans for their herds in preparation prior to and during an FMD outbreak. See **Attachment 4. Producer's Role in an FMD Outbreak.**

Federal Agency Interface

Due to the highly contagious nature of FMD and the potential for the virus to rapidly infect a large number of livestock, the federal government, and in particular the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS), may be requested to assist with Iowa's response, and/or recovery efforts, possibly as soon as a case is diagnosed in North America. This section of the plan lists the specific actions that the USDA and other federal agencies would be expected to take based on conversations and/or understandings between those agencies and State of Iowa officials.

United States Department of Agriculture

- Provide a Secretarial Emergency Declaration when necessary.
- Through the VS District Director and Assistant Director (AD) for Iowa or a National Incident Management Team, provide federal-level direction, leadership, and technical expertise to accomplish the detection, containment, and eradication goals of an FMD outbreak in Iowa.
- Coordinate with the State Veterinarian to deploy a state or a federal FADD to investigate reports of potential cases of FMD.
- Participate in Unified Command with Iowa Incident Command officials and provide federally deployed personnel and resources to support the response. USDA personnel may be deployed to the SEOC as well as Incident Command Posts to participate in state and federal response activities. USDA personnel may also be assigned to field activities.
- Provide surge capacity for needed response personnel through agreements, such as 3D contractors (depopulation, disposal, decontamination), the National Animal Health Emergency Response Corps (NAHERC) or other surge capability.
- Collaborate on designating premises based on USDA definitions, and defining and establishing Control Areas comprised of Infected Zone and Buffer Zone around locations with diseased animals as well as identifying applicable surrounding areas, including the Free Area.
- Facilitate requests for federal resources made by the State Veterinarian, HSEMD, and/or other Incident Command officials to respond to, and recover from, an FMD outbreak.

- Collaborate with federal partners, including FEMA, to provide personnel, resources, and funding.
- Provide countermeasures from the National Veterinary Stockpile when requested and deemed necessary.
- Facilitate the flow of information to Iowa Incident Command and provide accurate situational awareness of the status of FMD in other states.
- Immediately notify the State Veterinarian of any new suspected or confirmed FMD cases in Iowa, any initiation of an FMD investigation, and any information gathered from an on-farm inspection.

- Support response efforts in a Unified Command to detect, trace, quarantine infected animals, and contain and eradicate FMD in accordance with guidance and procedures described in the *APHIS Foreign Animal Disease (FAD) Preparedness and Response Plan (PReP) Foot-and-Mouth Disease Response Plan (The Red Book)*.
- Use data associated with the national premises identification database to trace movements into, out of, and within the State of Iowa.
- Use EMRS2 as the information management system to gather, store, sort, and report data associated with the response, issue and account for movement permits that meet appropriate criteria, and track state and federal resources.
- Through APHIS Legislative and Public Affairs (LPA) participate in the JIC to develop and distribute public information and reports.
- Provide laboratory confirmation at the designated NVSL of early cases, and ensure surge capacity through the NAHLN laboratories for FMD diagnostic testing throughout the response.
- If necessary, impose an area quarantine which may involve a small area of a few premises, or multiple counties in order to stop movement that may be a risk to spread FMD.
- Immediately report suspected FMD cases that may be detected at slaughter and processing facilities under USDA FSIS inspection.
- When federal funds are available, provide the indemnification for animals depopulated by the response and the associated costs which qualify for potential federal reimbursement. Restrict payment of compensation in cases of violation of the qualifications.
- Through APHIS Wildlife Services, collaborate with IDALS, Iowa DNR, and U.S. Fish and Wildlife Service to assess and mitigate the risk of FMD transmission involving wildlife, particularly in the vicinity of the Control Area (e.g., deer, scavengers). Assessment and mitigation may include but is not limited to surveillance (road kills, hunter harvest) and depopulation of deer.
- Authorize the use of the North American Foot-and-Mouth Disease Vaccine Bank in accordance with response strategies and national policies controlling this action.
- Report the U.S. FMD status and disease-free status to the OIE and the country's trading partners, so as to maintain international trade or re-establish international trade as quickly as possible.

Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA)

- If a response becomes too large for USDA to handle, USDA will ask other federal agencies to provide support under National Response Framework. Under these circumstances DHS/FEMA may coordinate federal activities and funding.

Federal Bureau of Investigations (FBI)

- Lead the investigation of any suspected terrorist act of intentional introduction of FMD.

U.S. Department of the Interior (DOI)

- Through the U.S. Fish and Wildlife Service, collaborate with Iowa DNR, IDALS, and APHIS Wildlife Services to assess and mitigate the risk of FMD transmission involving wildlife, particularly in the vicinity of the Control Area.

U.S. Department of Labor (DOL)

- Through the Occupational Safety and Health Administration, collaborate with IWD, IDPH and IDALS to assure safe and healthful working conditions for responders.

Centers for Disease Control and Prevention (CDC)

- Through the National Institute for Occupational Safety and Health (NIOSH), enhance the ability of emergency responders and recovery workers to avoid or minimize death, injury, and disease outcomes as a result of the FMD response.

U.S. Food and Drug Administration (FDA)

- Ensures the safety of all food except for meat, poultry and some egg products. Oversees consumer protection related to milk and shell eggs. Partners with USDA in assuring the public concerning food safety.

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EXPLANATION OF ACRONYMS

AD	Assistant Director for Iowa, USDA APHIS VS
APHIS	Animal and Plant Health Inspection Service
CVI	Certificate of Veterinary Inspection
DAS	(Iowa) Department of Administrative Services
DHS	Department of Homeland Security
DIA	(Iowa) Department of Inspection and Appeals
DIVA	Differentiating Infected from Vaccinated Animals
DNR	(Iowa) Department of Natural Resources
DOC	Departmental Operations Center
DOI	Department of the Interior
DOT	(Iowa) Department of Transportation
DPH	(Iowa) Department of Public Health
DPS	(Iowa) Department of Public Safety
EMAC	Emergency Management Assistance Compact
EMRS	Emergency Management Response System
ESF	Emergency Support Function
FAD	Foreign Animal Disease
FADD	Foreign Animal Disease Diagnostician
FADDL	Foreign Animal Disease Diagnostic Laboratory
FAD PReP	Foreign Animal Disease Preparedness and Response Plan
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FFA	Future Farmers of America

FMD	Foot-and-Mouth Disease
FSIS	Food Safety and Inspection Service
GIS	Geographic Information System
HSEMD (Iowa)	Department of Homeland Security and Emergency Management
ICS	Incident Command System
IDHS	Iowa Department of Human Services
IDALS	Iowa Department of Agriculture and Land Stewardship
JIC	Joint Information Center
LPA	Legislative and Public Affairs
MRP	Mission Ready Package
NAHERC	National Animal Health Emergency Response Corps
NAHLN	National Animal Health Laboratory Network
NVS	National Veterinary Stockpile
NVSL	National Veterinary Services Laboratory
OIE	World Organisation for Animal Health
PPE	Personal Protective Equipment
PIN	Premises Identification Number
PIO	Public Information Officer
SEOC	State Emergency Operations Center
SNAP	Supplemental Nutrition Assistance Program
TAHC	Terrestrial Animal Health Code
USDA	United States Department of Agriculture
VS	(USDA APHIS) Veterinary Services

Attachment 1. Notification List for Iowa State Agencies

IN DEVELOPMENT

Agency	Division	Daytime Phone	Emergency Phone	Contact
Iowa Department of Agriculture and Land Stewardship				
State Veterinarian				Dr. David Schmitt
Office of the Governor				
Homeland Security and Emergency Management				
Department of Inspections and Appeals				
Department of Public Health				
Department of Natural Resources				
Department of Public Safety				
Department of Transportation				
Department of Human Services				
Department of Administrative Services		515-725-2205	515-418-7271	Janet Phipps, Director
		515-725-0114	515-782-5371	Dave Heuton, Deputy Director
		515-419-5167	515-419-5167	Paul Carlson, Staff
National Guard				

Agency	Division	Daytime Phone	Emergency Phone	Contact
Iowa Board of Regents	Iowa State University Veterinary Diagnostic Laboratory			
	Iowa State University Extension			
	Iowa State College of Veterinary Medicine			
	University of Iowa			
	State Hygienic Laboratory			
Attorney General's Office				
Department of Workforce Development	Unemployment Insurance	515-725-3757	515-725-3757	Brenda.Boten@IWD.Iowa.Gov
Department of Workforce Development	Workforce Services	515-725-3605	515-725-3605	Jennifer.Reha@IWD.Iowa.Gov
Iowa Finance Authority				

Attachment 2. Summary - Potential Phases and Types of FMD Response

(As taken from *Classification of Phases and Types of a Foot-and-Mouth Disease Outbreak and Response* at https://www.aphis.usda.gov/animal_health/emergency_management/downloads/phases-and-types-of-an-fmd-outbreak_2013.pdf.)

The **phase** is a temporal stage in an FMD outbreak response. The **type** is a categorical measure of magnitude of an FMD outbreak and its response. The phase and type of the FMD outbreak is expected to change over time and could be designated by the authorities responsible for managing the response. Different regions of the United States or segments of the animal agriculture industry may be designated as being involved in different phases or types of an FMD outbreak simultaneously. Considerations for emergency response actions are provided in the document based on phase and type of event at that time. The phase and type designations below are guidelines and may be modified by the responsible authorities to best fit the specific outbreak.

Phases of an FMD Response

HEIGHTENED ALERT PHASE: FMD outbreak in either Canada or Mexico, but not the United States.

PHASE 1:

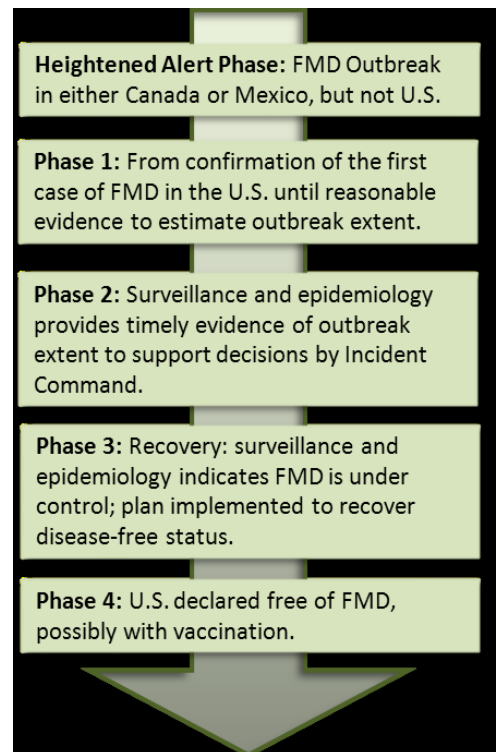
The period of time from the confirmation of the first FMD case in the United States until there is reasonable evidence to estimate the extent of the outbreak. The transition to Phase 2 should be accomplished as soon as possible, with a goal of less than 4 days (96 hours).

PHASE 2:

Surveillance and epidemiology provides timely evidence of the extent of the outbreak (characterized as one of six types) to support planning and decision making by Incident/Area Command.

PHASE 3:

Recovery: Surveillance and epidemiologic evidence indicates that the outbreak is under control and a plan is implemented to regain FMD-free status (possibly with vaccination).



PHASE 4:

The United States is declared free of FMD (possibly with vaccination). The USDA continues to work to convince trading partners to accept U.S. exports of animals and animal products.

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 is feasible.

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. Depending on animal density, sufficient vaccine and resources can be made available to vaccinate designated susceptible domestic animals to reduce virus transmission. 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.

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. Depending on the epidemiological situation, there may not be sufficient vaccine and resources available to vaccinate designated susceptible domestic animals to reduce virus transmission. The number of susceptible animals may be too great to consider only a vaccinate-to-kill strategy—a vaccinate-to-slaughter and/or vaccinate-to-live strategy may also be needed. There is a reasonable likelihood that the response strategy, including vaccination, will bring the outbreak under control.

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 not

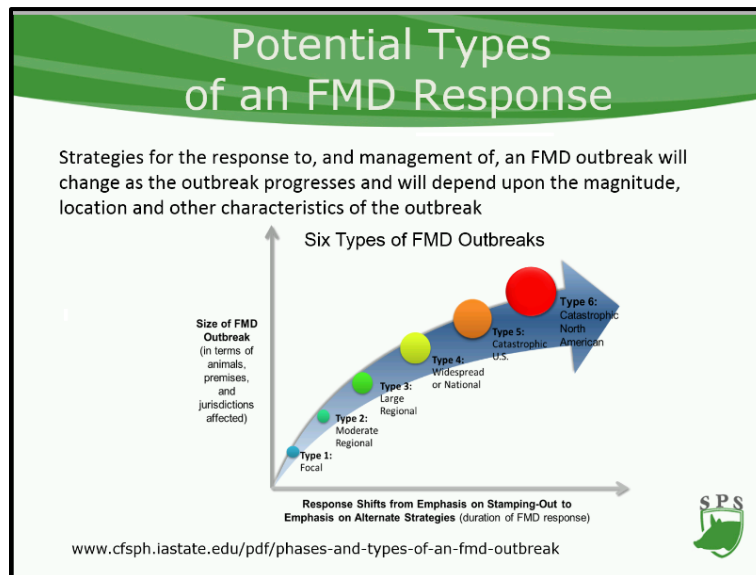
available to vaccinate all designated susceptible domestic animals in the affected regions (Control Areas). The number of vaccinated animals is too great to consider a vaccinate-to-kill or slaughter (only) policy. Implement a vaccinate-to-live policy with continued vaccination after the last case to ensure suppression of virus transmission.

TYPE 5 – CATASTROPHIC FMD OUTBREAK:

Widespread areas of infection are detected involving a large portion of the United States. Sufficient vaccine and resources are not available to quickly vaccinate all designated susceptible animals in the affected regions. The number of animals is too great to consider only a vaccinate-to-kill or vaccinate-to-slaughter strategy in isolation. Vaccinate-to-kill, vaccinate-to-slaughter, and vaccinate-to-live policies may need to be implemented for regions and species, as vaccine availability dictates. It becomes apparent that FMD is widespread, and will not be eradicated within a year.

TYPE 6 - NORTH AMERICAN FMD OUTBREAK:

Widespread areas of infection are detected involving a large portion of the United States, Canada, and/or Mexico. Sufficient vaccine and resources are not available to quickly vaccinate all designated susceptible animals in the affected regions/countries. The number of vaccinated animals is too great to consider a vaccinate-to-kill policy. It becomes apparent that FMD is widespread, and will not be eradicated within a year.



Attachment 3. Role for Local Government and Emergency Management in an Animal Health Emergency

IDALS as the lead agency plans to work through the Iowa Department of Homeland Security and Emergency Management (HSEMD) to identify, locate, and procure local resources needed to contain and eradicate disease. Requests from HSEMD will be forwarded to local government officials and emergency management for sources, contacts, and locations of local resources to be quickly deployed in an emergency.

Types of resources that may be requested include, but are not limited to:

- Personnel – available people familiar with animal handling of specific species.
- Carbon sources for composting - wood shavings, hay, straw, corn stover
- Port-a-Potties
- Housing/hotel rooms for responders
- Food for responders - NGOs like church groups and Red Cross
- Signage - created by local public works
- Earth moving equipment – for digging, lifting, and hauling material for burial
- Trucks – transport dirt for berms, materials for disposal
- Skid loaders for composting
- Snow blowers used to create compost piles
- Generators
- Mobile lights
- Security fence
- Cleaning and disinfecting (C&D) equipment – power washers, tanks to transport water
- Sump pumps to help collect effluent from C&D activities
- Large animal restraint equipment - chutes, livestock panels
- Fuel supplies – local private gas stations or public works supplies
- Buses for transporting responders
- Assistance with local communication – law enforcement radios, repeaters, ham radio operators
- Foamers for poultry depopulation
- Local emergency operation centers if needed as an Incident Command Post
- Staging areas for response equipment – county fairgrounds, public works areas
- Locations suitable as warehouse space for the National Veterinary Stockpile countermeasures - such as armories and vacant auto dealerships
- Truck washes
- Meeting venues for local community meetings or responder meetings such as training
- Locations for potential disposal – private or municipal landfills, private or public land
- Information about weight limits on local roads
- Local producers with livestock at risk, or have deployable resources or personnel
- Extension offices and agents
- Community leaders - Future Farmers of America (FFA) and 4H leaders
- Mechanics and equipment repair service – welders
- Equipment sales - tires, trailers,
- Local Incident Command trained personnel – retired fire or law enforcement

- Security personnel – retired law enforcement or security companies

Attachment 4. Producer's Role in an FMD Outbreak

Identification of Foot-and-Mouth Disease (FMD) in the United States will have crippling economic consequences. Government and industry will need to collaborate to contain and eradicate the disease. The Iowa Department of Agriculture and Land Stewardship (IDALS) leads the effort to contain and eradicate FMD with the support of its response partners. The producer's role is to protect the herd from exposure to the disease. Once a herd becomes infected, the producer's role is to assist in containing the disease to protect neighboring herds.

Before an outbreak, develop options (a written producer plan) to protect the herd from FMD exposure, mitigate unintended consequences of movement restrictions, sustain the herd, contain the disease if infected, minimize economic harm, and maintain situational awareness. Be prepared to take action based on each of the steps below before and during an FMD outbreak. A rapidly expanding disease outbreak may impact your herd or flock with little warning.

PART 1 - Producer's Role - Preparation Prior to an FMD Outbreak

- Gain an understanding of FMD – the transmission, the effect on animals, the types of susceptible species, the difficulty of containment, the complexity of an emergency response, and the economic impact. Access Fast Facts on Foot and Mouth Disease at http://www.cfsph.iastate.edu/FastFacts/pdfs/foot_and_mouth_disease_F.pdf
- Report suspicious signs of illness in susceptible animals to the Iowa State Veterinarian (515-281-5321) or USDA (515- 284-4140). Add these numbers to your cell phone contacts. Post them in your barn. Signs of disease are described in the **FMD Pocket Guide** for swine and for cattle (<http://www.cfsph.iastate.edu/DiseaseInfo/disease.php?name=foot-and-mouth-disease>).
- Have a National Premises Identification Number (PremID or PIN). The valid 911 address and set of matching GIS coordinates of each individual premises within your production system where animals are actually located should be registered with IDALS and USDA. PINs are assigned through the Office of the State Veterinarian (515-281-5321).
- Connect to at least one 'communication chain.' Confirm how your best source(s) of information about an FMD outbreak (IDALS, national, state and local industry associations, extension, local veterinarians) plans to communicate (website, electronic messages, local meetings, conference calls). Develop procedures to quickly communicate with your employees.
- Create and voluntarily participate in a 'Neighbor Network.' Share information about the FMD status of your herd and premises with your neighbors, your industry association, and your industry to identify potential disease exposure. Government agencies must hold specific information about the location of disease investigation and diagnosis confidential.
- Review the **Secure Food Supply Plans** (Milk, Pork, and Beef) as appropriate for your business. Implement the enhanced biosecurity recommendations based on the site-specific assessment. Procure or identify sources for cleaning and disinfecting equipment and supplies. Meet criteria to be eligible to move non-infected animals and animal products if your premises is included geographically in a disease Control Area. See links to plans (<http://www.cfsph.iastate.edu/Secure-Food-Supply/index.php>).

- As a biosecurity resource, consult FAD PReP/NAHEMS Guidelines: Biosecurity (https://www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/fadprep_nahems_guidelines_biosecurity.pdf)

- Prepare for movement restrictions. Movement controls to minimize disease spread will delay normal transportation procedures to the next production site, to slaughter, or to processing. Evaluate options to maintain the animals or animal products currently held on your premises for additional days or weeks. This may include live animals, animal carcasses, and animal products like milk and manure. Alternate arrangements for incoming feed or outgoing manure may be needed such as less frequent deliveries, alternate disposal, and biosecurity requirements for movements.
- Maintain herd records. Records may trace the potential spread of FMD into the herd or to other locations through movements over the prior 30 days.
- Consult the Iowa Department of Natural Resources (DNR) to develop disposal options. Viable, customized options for disposal of both non-infected and infected livestock, manure, and products such as milk are based on the animals' disease status, the environment, and time of year.
- Evaluate options to reduce herd size. FMD in the U.S. will cause the loss of export markets and an oversupply of animal protein on the domestic market. Producer emergency options may include reducing herd size through early marketing, euthanasia, and/or abortions.
- Plan for biocontainment if the herd becomes infected. Develop protocols to prevent the escape of the virus through movements of personnel, equipment, vehicles, and wildlife. The risk of spreading FMD through employees' contact with other susceptible livestock should be prevented.
- Become a member of your industry association. Work to define and resolve your emergency response challenges.
 - Communicate your needs in preparing for an FMD outbreak. Ask for support through existing resources and with the development of new resources to protect your business.
 - Determine an accepted level of risk in receiving animals and animal products from an FMD infected area - from an infected state, or from within a disease Control Area. Determine if your decision would be based on Iowa being an infected or non-infected state. Remember if the situation is reversed and your uninfected premises is included in a disease Control Area, you may wish others to accept your shipments.
 - Weigh the pros and cons of employing an FMD vaccination strategy for your industry.
 - Discuss your plans to protect your herd and share best practices. Your neighbor's actions may protect your herd from FMD exposure.

PART 2 - Producer's Role - During an FMD Outbreak If Not Infected

- Implement pertinent aspects of your 'producer plan' developed prior to the outbreak.
- Watch for and immediately report signs of FMD to the Iowa State Veterinarian (515-281-5321) or USDA (515- 284-4140).
- Implement enhanced biosecurity. Consistently enforce protocols (including employees) to ensure that every movement onto the premises has a mitigating action to prevent the transfer of disease. Refer to:
 Secure Milk Supply Plan - <http://securemilksupply.org>
 Secure Pork Supply Plan - <http://www.securepork.org>
 Secure Beef Supply Plan - <http://securebeef.org>
- Connect to your 'chain(s) of communication.' Remain aware of current information about the FMD outbreak and response. Share information with your employees.

- Comply with movement restrictions, and any stop movement order once the short window of time has passed for trucks on the road to reach their destinations. Initiate no new movements.
- Report high-risk movements to IDALS. At the time that FMD is identified in North America, review your herd records and report any movements onto your premises from or associated with an FMD infected area (country, state, and/or county) during the prior 30 days.
- Know the process and request a movement permit if required. IDALS will determine the process for in-state movements. Permit requests for movements to out-of-state destinations may need to be submitted to the animal health authority of the state of destination. A PIN will be required for origin and destination when requesting a movement permit.
- Be eligible to move. Provide evidence that criteria for eligibility to move have been met when requesting an animal movement permit. Criteria for movements out of a disease Control Area are expected to be guided by the Secure Food Supply Plans.
- Avoid exposure to FMD off the farm. Prevent any contact that may expose your herd directly while in transit, or indirectly through farm personnel, equipment or vehicles.
- Make changes to your production process. Mitigate the economic impacts from:
 - The disruption in the transportation schedules for the next stage of production,
 - The inability of an expected shipment (animals, feed, supplies) to arrive due to movement restrictions at the origin,
 - The inability to access the next destination of your animals (contract finisher, feedlot, livestock market, processing) due to disease quarantines,
 - The inability to fulfill supply contracts with a processor,
 - The inability to fulfill animal purchase contracts,
 - The domestic oversupply of animal protein due to loss of exports, and
 - The losses due to early harvesting or other actions to reduce herd size.
- Permanently identify all FMD susceptible animals. Use USDA official identification as appropriate and maintain records on each animal and animal groups.
- Review your disposal options. Implement those options developed with assistance from the Iowa DNR, as needed.
- Isolate all new additions to the herd. Consider holding these animals separate for 30 days to avoid co-mingling with the rest of the herd as a further precaution and dedicated personnel to only oversee these animals.
- Voluntarily participate in a ‘Neighbor Network.’ Share information about the FMD status of your herd and premises with your neighbors, your industry association, and your industry.

PART 3 - Producer’s Role - During an FMD Outbreak If Infected

- Comply with a disease quarantine. A quarantine will impose complex requirements and producer responsibilities. Be aware of what criteria must be met to lift the quarantine.
- Maintain communication with your contact official. This contact within the incident command of the response may be known as a Case Manager or other title.
- Focus biosecurity on containment. Protect your neighbor by implementing biosecure exits from your infected premises. Ideally, establish only one controlled access point (entry and exit) to your premises. Institute protocols to prevent escape of the virus, such as setting up a cleaning and

disinfection station to decontaminate everything that exits the premises. Enforce consistent compliance. See FAD PReP Standard Operating Procedures (SOP): Biosecurity (https://www.aphis.usda.gov/animal_health/emergency_management/downloads/sop/sop_fmdecsf_biosecurity.pdf).

- Prevent contact between wildlife and the infected herd, including feed and water sources.
- Cooperate with response officials on disease containment and eradication. The response strategy may involve indemnification of depopulated live animals to prevent the spread of disease. An alternate strategy may allow animals to recover, which will not include indemnity. Humanely care for animals while their future is being decided, including treatment of debilitated animals that are capable of recovering.
- Plan to maintain herds under quarantine for extended periods of time. If the response strategy has moved away from depopulation, animals may be allowed to recover, but may remain quarantine until no longer a threat to spreading FMD. Indemnity for production losses will not be available. Producer plans will need to include on-site manure management and carcass disposal within the quarantined area. Review options developed with the assistance of the Iowa DNR.
- Reevaluate your business model. Make changes based on a herd that may not be fully productive, animals that may need to be euthanized for humane and health reasons or to contain disease, biosecurity requirements for any movements on (deliveries) or off your premises, depressed prices for animal protein, disrupted harvest systems, and restrictions on financial support.
- Communicate with lenders if flexibility with payments is necessary.
- Voluntarily participate in a 'Neighbor Network' to share information about the FMD status of your herd and premises with your neighbors, your industry association, and your industry.