Steps in an Animal Disease Emergency Response

The response needed for an **animal disease emergency (ADE)** will depend on a number of factors, such as the particular disease, how easily it is spread, and the number of animals or locations affected. However, all animal disease emergencies involving livestock or poultry will involve the State Veterinarian, and usually the Federal Area Veterinarian in Charge (AVIC). Understanding the steps that may be taken to control and contain an ADE can help communities prepare for and assist in the response to and recovery from an ADE situation.

**Detection**

Detection usually occurs at the local level, when a producer notices unusual signs in their animals and contacts their veterinarian. Veterinary diagnostic laboratories or inspectors at slaughter facilities may also make the initial detection. Any veterinarian suspecting a disease of high consequence (also called foreign animal diseases or FAD) is required to notify the State Veterinarian or the Federal AVIC.

**Possible Signs of a High Consequence Disease in Livestock**

- Increased illness, death or abortion rates
- Significant drops in production
- Ulcers/blisters on or around the mouth or feet
- Sudden lameness
- Any neurological signs
- Pox or lumpy skin conditions
- Severe respiratory illness
- Any other unusual or unexplained signs

**Investigation and Diagnosis**

Once detected, the incident is now handled from the state/federal level downward. The State Veterinarian has the authority to direct all response actions (in partnership with their federal counterpart-the AVIC).

A FADD (foreign animal disease diagnostician, a specially trained veterinarian) is sent out by the state to investigate the farm. The FADD will assess the situation, examine the suspect animal(s) and collect appropriate samples for diagnostic testing. Any prior movements of animals, vehicles, and personnel onto and off of farm as well as neighboring farms may also be investigated as part of surveillance activities.

**Containment**

**Quarantine and Movement Restrictions**

Once an ADE situation has been identified, the affected farm (**Infected Premise**) will be placed under quarantine. Diseased or exposed animals will need to remain on the premises until the necessary control procedures are determined by the State or Federal Veterinarian. A **Control Zone**, which includes any **Contact Premises** (farms or areas with connection to the Infected Premises), will be established. Movement restrictions for animals, animal products, vehicles and possibly, people may be used to prevent the further spread of the disease. Road blocks and/or check points may be needed at entry and exit points in the Control Zone. Additional zones (see diagram) may be necessary to control, contain and monitor the disease. These measures may require a large number of personnel depending on the location.

**Disease Control**

- Animal depopulation
- Carcass disposal
- Cleaning and disinfection

**Business Continuity**

**Recovery**

Steps in an ADE Response, continued

Disease Control

Depopulation

Most high consequence animal diseases are very contagious and spread easily. Usually the necessary control measures will involve the depopulation of affected herds or flocks. On rare occasions, the use of vaccination, if applicable and available, may be used with federal government approval. Humane euthanasia methods are determined by the State Veterinarian and/or Federal AVIC and implemented by veterinarians activated to assist with this measure.

Disposal

Once animals are depopulated, disposal of the carcasses, any bedding, hay, etc. will need to be promptly done to prevent further spread of the disease. Several disposal options are available, such as burial, rendering, composting, landfills, incineration and alkaline hydrolysis. Burial is a preferred method. Open burning is not allowed in many states, including Iowa.

Cleaning and Disinfection (C&D)

Cleaning and disinfection procedures are essential during an animal disease event. Cleaning and disinfection of anyone or anything entering into or coming out of a quarantine area will be essential to minimize the further spread of the disease. Equipment and vehicles should be cleaned and disinfected upon arrival to and departure from an infected premise. Once a premise is depopulated, all facilities and equipment will need to be cleaned and disinfected. Approved disinfectants and appropriate application methods will be determined by the State Veterinarian or the Federal AVIC.

Safety

Some high consequence animal diseases are zoonotic (diseases of animals that can affect humans). In these situations, responders and producers must take precautionary measures to protect themselves during the response. The risk to human health will be considered and determined by the State Veterinarian, the Federal AVIC, or their designated Safety Officer. Appropriate Personal Protective Equipment (PPE) may be necessary and include gloves, Tyvek coveralls, masks or eye protection. Injuries from animals or slips, trips or falls can also occur during a response, so caution is essential.

Business Continuity

Many businesses and communities are dependent on agriculture for economic stability. Preparedness planning before an ADE is essential to minimize the impact of an ADE on local businesses, their employees and the community.

Recovery

Restoring confidence after the situation is contained and controlled will be essential for recovery. State or Federal indemnity plans may be implemented to aid producers for some or all of the loss of value of animals depopulated during the outbreak. The loss of animals and livelihood can have a great impact on the mental health of producers, communities, even responders. The availability of support programs will be needed for the recovery of communities affected by an ADE.