

REPORT OF THE USAHA/AAVLD COMMITTEE ON ANIMAL EMERGENCY MANAGEMENT

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The Committee met on Saturday, October 15, 2016, at the Sheraton Greensboro Hotel in Greensboro, North Carolina, from 8:00 a.m. to 1:00 p.m. There were 61 members and 44 guests present. At the beginning of the meeting, the mission statement was reviewed along with the response from USDA-APHISVS to the 2015 USAHA Resolution #1, *National Foot-and-Mouth Disease Preparedness*. Members and guests were referred to the USAHA website to view the responses to all of the 2015 resolutions. Thirteen presentations were heard.

Presentations

USDA-APHIS-VS After Action Corrective Action Program for HPAI

Jon Zack, USDA-APHIS-Veterinary Services (VS), National Preparedness and Incident Coordination (NPIC) Surveillance, Preparedness, and Response Services (SPRS)

Dr. Zack provided an update over the APHIS-VS After Action (AA) Corrective Action Program (CAP) for highly pathogenic avian influenza (HPAI). Specific USDA-APHIS HPAI Reports and After Action Reviews completed:

- 2015 HPAI Fall Plan
- 2015 HPAI Final Report
- 2015 HPAI After Action Report
- 2016 HPAI/LPAI Indiana Final Report

- 2016 Indiana After Action Report

In addition to attending stakeholder meetings and hot washes, USDA-APHIS also conducted the following meetings and activities to collect information:

- April 2015 - First hot wash and regional Acquisition Approval Request (AAR)
- June 2015 - Hot wash/debrief for the four VS National Incident Management Team (NIMT) Command Staffs
- June 2015 - HPAI Fall Planning Workshop
- July 2015 - Hot wash of Joint Information Center (JIC)
- August 2015 - Online survey of APHIS responders
- September 2015 - VS NIMT Workshop

The HPAI reports and after action report (AAR) process, which included widespread interviews, surveys, and subsequent analysis, resulted in over 60 distinct observations and over 150 recommendations related to the response activities conducted by APHIS in 2014–2015. These activities were grouped based on the 23 critical activities: communications, biosecurity, and incident management critical activities garnered the most feedback. The majority of lessons learned, across all critical activities, fell into three broad themes:

1. The need for revised/new guidance and procedures;
2. Challenges that were due to the scale of the incident; and
3. Observations related to problems in information sharing and coordination.

In terms of guidance and procedures, certain activities required streamlining and improvement in order to meet the other goals of the response effort, such as appraisal and compensation. Additionally, this outbreak, the largest in U.S. history, demonstrated the need for revised guidance on large-scale response capabilities and strategies, like mass depopulation goals and methods. Other critical activities required further elaboration based on the situation on the ground, such as virus elimination requirements.

Many other lessons-learned were related to the challenges of mounting an effective response given the sheer size and complexity of the outbreak. For instance, during the height of the incident there were delays and difficulties because of a shortage of available qualified personnel for critical activities such as diagnostic testing, depopulation, appraisals, carcass disposal, and information management. Equipment, supplies, and/or services were sometimes lacking (i.e., resources for diagnostic testing, depopulation, and disposal).

USDA Update on the Permit Gateway and Permitting for HPAI

Fred Bourgeois, USDA-APHIS-VS, Surveillance, Preparedness, and Response Services (SPRS), National Preparedness and Incident Coordination Center (NPIC)

Dr. Bourgeois discussed the EMRS2 Customer Permit Gateway. This is a newly designed secure web application which facilitates and streamlines permit requests for producers. Registered producers can login to request permits and check on the status of any existing request. When a permit is requested, it is entered into the Gateway, it appears in the EMRS2 database automatically. An EMRS2 specialist reviews the request in a queue and reviews the data for completeness. Information entered includes: permit class, permit reason, origin premises, destination premises, item class, and duration/span of permit.

Once registered in the Gateway, a producer may identify all of their premises. After entering a request for a permit, a producer can see the status of their permit. No changes to the permit are allowed after it has been accepted into the EMRS2 database. Once a permit has been approved by a destination State, a producer can enter their permitted movements directly in the Gateway until the permit expires or they no longer meet the terms of the approved permit.

Analytical Support Before and During Outbreaks of Highly Contagious Animal Diseases

Amy Delgado, CEAH, USDA-APHIS-VS, Science, Technology and Analysis Services (STAS)

Dr. Delgado's presentation provided an overview of analytical support that the Center for Epidemiology and Animal Health (CEAH) can provide before or during an outbreak, and discusses how Federal, State, and industry partners can request help with outbreak investigations. The CEAH provides analytical epidemiology for comprehensive analysis of animal disease outbreaks and control programs; identifies emerging animal health issues and monitors health-related aspects of U.S. livestock management and

production; and conducts risk assessments and develops economic and epidemiologic models to inform benefit-cost analysis, risk analysis, and surveillance plans. CEAH analysts develop and maintain a variety of tools to help industry, State and Federal partners better prepare for and respond to animal health emergencies.

Latest Findings: Carcass Management and Decontamination

Lori Miller, USDA-APHIS-VS, Science, Technology and Analysis Services (STAS)

Ms. Miller discussed progress made over the past several years to improve carcass management and decontamination capabilities when responding to animal health emergencies. Her presentation highlighted two general examples of major improvements and then provided a more in-depth discussion over key findings from a number of projects performed recently. Her talk also included a path forward based on the findings.

MSPSA: USDA-APHIS Resource Allocation and Area Command TTX

Sara McReynolds, North Dakota Department of Agriculture, North Dakota State Board of Animal Health

The Multi-State Partnership for Security in Agriculture (MSPSA) and USDA, APHIS, VS have been conducting a series of joint resource management exercises. Dr. McReynolds presented on the exercise. The first part of this exercise series was a tabletop exercise (TTX) in May 2016 that included 11 states, three VS districts, livestock trade associations and local jurisdictions. The scenario consisted of three modules and presented an outbreak of Foot and Mouth Disease (FMD). The first module examined resource management and Incident Command when FMD is in the U.S. but not close to any of the participating states. The second and third modules incrementally moved FMD closer to the participating states, eventually introducing the disease to all of the participating states.

The MSPSA workgroup envisions a series of activities to help participants address areas of improvement identified at the May 2016 TTX and other issues necessary for them to successfully participate in the FY 2018 functional exercise. These activities may include seminars, workshops, drills and possibly additional TTXs. The exercise series will be culminating in a functional exercise in May 2018.

This series of exercises are included in the FY 16 and 17 VS Training and Exercise Program (TEP) plan. These exercises are described under Events 3.3.2, 3.3.3, and 3.3.4 of the TEP. While the TTX was directed at MSPSA member states and associated VS districts, subsequent activities will be open to states and districts interested in participating and willing to commit the financial and personnel resources necessary to successfully engage in the project activities. This event will give states an opportunity to participate either as impacted jurisdictions or as non-impacted jurisdictions, allowing the latter group to evaluate movement protocols and resource sharing, and participate in visibility and situational awareness aspects of the exercise, but not direct FAD response.

MSPSA: Development of Materials to Facilitate Discussions Between State and Local Personnel for Incident Command System (ICS), State Contracting, State Agency Coordination, and State/Local Coordination

Darlene Konkle, Wisconsin Department of Agriculture, Trade and Consumer Protection

Following the 2014-2015 Highly Pathogenic Avian Influenza (HPAI) outbreak in the Midwest, responding states identified lessons learned and best practices that needed to be revisited. The responding states identified four key areas:

1. Incident Command Structure
2. Communications with local agencies
3. Communications with state agencies
4. State contracting.

The Multi-State Partnership for Security in Agriculture (MSPSA), secure egg supply (SES), Inc. and the Iowa State University Center for Food Security and Public Health (CFSPH), worked together to develop resources to assist states in filling these gaps. These resources serve as a starting-point to prompt and facilitate multi-agency discussions to improve response capabilities. Animal health agencies and responding partners are encouraged to customize these resources to best serve an audience and achieve the goals to improve coordination between federal-state-local government and private industry within their own jurisdictions. The resources are available online at the Iowa State University Center for Food Security and Public Health (CFSPH) website:

<http://www.cfsph.iastate.edu/Emergency-Response/facilitated-discussion-materials.php>

Specific resources (i.e., presentations) include:

1. Incident Command Structure Update: Evaluate the organizational structure and position requirements to fully utilize response capability and capacity
2. Communication with Local Jurisdictions: Determine when, what, and how to communicate with local response partners to improve collaboration
3. Communicating with State Agencies: Identify the essential information to present during state agency briefings to enhance the efficiency of communication
4. State Contracting in a Foreign Animal Disease Response: Explore challenges and solutions in each state to implement emergency contracting procedures to respond to an animal disease event.

This project was funded through the Multi-State Partnership for Security in Agriculture by the Wisconsin Department of Agriculture, Trade and Consumer Protection by allocating U.S. Department of Homeland Security State Homeland Security Grant Program (HSGP) funds. Developed by SES, Inc. and Center for Food Security and Public Health (CFSPH).

Update over Palo Duro FMD Exercise

T.R. Lansford, Texas Animal Health Commission; Becky Brewer-Walker, USDA-APHIS-VS, Surveillance, Preparedness and Response Services (SPRS); Mike Pruitt, USDA-APHIS VS, and Josh Winegarner, Texas Cattle Feeders Association

The Palo Duro II Functional Exercise was conducted over a day and a half on August 16 and 17, 2016, in Amarillo, Texas. With participation from local, state, federal, and private sector representatives, it was designed to exercise a stakeholder response to a foot-and-mouth (FMD) disease outbreak among Texas Panhandle beef cattle, dairy, and swine populations. Exercise participants were organized into four Player Groups—Policy, Command, Industry, and Joint Information Center—in accordance with their occupation and expertise, they responded to scenario injects released from a Simulation Cell. There were 188 participants on Day 1 of the exercise, and 159 on Day 2.

The functional exercise scenario was a continuation of the scenario presented at the November 2015 Palo Duro II Tabletop Exercise (TTX). The Texas Animal Health Commission (TAHC) extended an invitation to deploy one of the VS National Incident Management Teams as a part of the *Palo Duro II* exercise. The exercise play involved a Unified Command response to an FMD outbreak in a commercial swine operation, a dairy, and a beef feed lot. The Veterinary Services (VS) Green Team located in District 4 was chosen as both Incident Commander (IC) and Deputy IC. Two Texas Panhandle concentrated animal feeding operations workers returned from a trip to Venezuela, introducing FMD to the region.

After a positive diagnosis of FMD at a beef cattle feed yard, the disease was eventually detected at area dairy and swine facilities. The exercise helped to identify gaps in current plans and highlighted agency policies/decisions during an FMD outbreak. The Team members who were 'deployed' as part of the exercise play, were:

- Becky Brewer – Incident Commander
- Leslie Cole (Blue Team) – Plans Chief
- Steve Goff (Blue Team) – Operations Chief
- Beth Nolcox – Finance Chief
- Nancy Roberts – Epidemiology
- Guy Allen – Liaison
- Fred Bourgeois – Emergency Management Response System (EMRS) permitting
- Lori Miller – Composting Subject Matter Expert (SME)

The VS Team worked with the TAHC team in a Unified Command Structure. Play was challenging as it was structured in three different time frames, the first few days, two weeks later, two months later. Incident management included; decisions to vaccinate vs euthanize, strategies and actions for vaccination, quarantine and testing, sending negative animals to slaughter, management of milk produced on an exposed, not affected, dairy, and management of selective euthanasia and disposal (swine).

Some key takeaways:

- Exposed challenges of a “top-down” Unified Command co-commanded by TAHC and USDA, which frustrated some participants accustomed to typical emergency management practices and protocols designed to address incidents other than an FMD outbreak (such as natural disasters);
- Identified the need to further develop and coordinate plans among all stakeholders regarding communications and messaging;
- Clarified that packing plants can continue to operate with Food Safety and Inspection Service (FSIS) approval;
- Tested the availability of cleaning and disinfection resources from government agencies and the National Veterinary Stockpile (NVS);
- Emphasized the importance and need for all response partners and affected entities to utilize a common situational awareness system;
- Followed the USDA FMD plans to implement vaccination protocols, including use of the vaccine bank and associated supplies;
- Helped to determine how stop movement and permitted movement of animals will be conducted by federal and state agencies;
- Coordinated effort for vaccine, slaughter, E/D, and messaging to both the agriculture community and the public.

Finally, the complex nature of the FMD outbreak scenario challenged the players and pushed them to examine innovative response strategies. Numerous observations and areas for improvement emerged through player discussions, and the overall interaction among public and private sectors representatives fostered by the exercise was extremely beneficial to local, state, federal, and industry preparedness efforts. From a state perspective, there were several key outcomes. Among those were the lessons learned through testing the emergency response mechanisms of the state for a response other than a natural disaster, to include funding structure and reporting functions, the need to develop mechanisms for Joint Information Center (JIC) members to interact more broadly outside of an event in an effort to be more aware of each other’s capabilities, and an opportunity to evaluate personnel training and capabilities to identify future training needs.

The USDA-APHIS Sources Sought Notices (SSN) for Foot and Mouth Disease Vaccine: Implications and Outcomes

Steve Parker, Merial, A SANOFI Company

The current North America FMD Vaccine Bank (NAFMDVB) stockpile is undersized to respond to anything other than a limited scope outbreak. Thoughtful consideration should be given to advancing the support capacity for FMD bank stockpiles that are in line with U.S. FMD vaccine use policy. Merial has produced for government clients in all regions of the world for endemic disease control efforts and for government preparedness programs.

In FMD-free countries, vaccine antigen banks are the standard model for emergency response to FMD outbreaks. Efficient antigen bank models match the quantity of bank antigen doses to the disease spread potential in the target livestock population combined with the manufacturer’s rapid response to convert the antigen to vaccine. The NAFMDVB stores vaccine antigen concentrate for the production of emergency FMD vaccines.

Food Protection and Defense Frame Systems for Animal and Food Emergency Response Training

Penny Norquist, Food Protection and Defense Institute (FPDI)

Animal agriculture stakeholders ranging from federal government officials to primary producers in the food industry all need emergency management competencies that align to serve the national preparedness system. High quality training is needed to prepare for, prevent, mitigate, respond to, and recover from an emergency in the animal agriculture sector, and individuals need an intuitive way to navigate training resources.

In collaboration with Department of Homeland Security Office of Health Affairs (OHA) Food, Agriculture and Veterinary Defense Branch (FAVD Branch), FPDI created a comprehensive training framework for animal agriculture emergency responders. The purpose of this interactive online framework

is to recommend training opportunities for every emergency responder in an Incident Command System (ICS) so they may be prepared to complete the tasks needed for efficient response during an animal agriculture emergency. The training framework will serve the vision of the national preparedness system by guiding the development of a skilled cadre of emergency responders, and it will offer a framework for an individual to plot out career development opportunities.

Over the last year, FPD has made progress on revising the current Frame system and developing frameworks across multiple sectors:

- Converted the Frame IT system over to a ruby-on-rails application to allow for more flexibility. The CAEM presentation will provide a demo of the Frame version 1 administrative view.
- Updated and cataloged course information for the animal and food frameworks.
- Hosted requirements workshops with participants from state and federal agencies, academia, industry, and international organizations to generate training frameworks for the food sector and the one health workforce.

Frame Objectives:

PROFESSIONAL (INDIVIDUAL) TRAINING MANAGEMENT

(CV/Profile Screen)

- Curriculum vitae (CV) format enables the user to document and manage their course records, experiences, education, specialties, and contact information.
- Track progress toward fulfilling recommended courses for an assigned role or future career role.
- Support user mobility across organizations in response to an event or over their career progression.
- Registration form enables quick entry into the Frame system.

ACCESS TO TRAINING

(Framework & Course Catalog Screens)

- Aligns courses and training goals by recommended competencies for a technical role
- Flexible Structure
(e.g. Incident Command Structure for Animal Frame, Competencies Grid for One Health)
- Organizations can start with a base framework scaffold and customize positions and course recommendations
- Organizations can add volunteers or users that may or may not be in an existing learning management system (LMS)
- Support for upload of just-in-time training courses

REPORTING

- Identification of training progress and gaps by individual, agency, or system wide. Additional reports to be determined based on the needs of the organization.
- One Health- country profile view.

We are looking for confirmation that the roles within the animal frame and alignment of courses meet the needs of your organization. A common list of specialties and real world experiences would provide consistency across the frame as well.

AgConnect® Emergency Exercise: Swine Industry Disease Response

Matt Cochran and Dee Ellis, Institute for Infectious Animal Diseases

The AgConnect® Emergency Exercise, took place over the course of two days, during the first week of August 2016. The exercise addressed business continuity for the U.S. commercial swine industry in the face of a foreign animal disease (FAD) outbreak (classical swine fever (CSF) in this case), and was coordinated and hosted by the Institute for Infectious Animal Diseases (IIAD) at Texas A&M University, a Department of Homeland Security Center of Excellence. The Texas Center for Applied Technology (TCAT) provided personnel and expertise to ensure fluid application of all technologies in use during the exercise. TCAT served as the technical developers of the AgConnect® system and the Emergency Management Exercise System (EMES) - used to drive the exercise).

This was a data driven exercise, with a focus on the function and utility of the AgConnect® suite of

tools, to provide for: planning, response and business continuity, biosurveillance, shared situational awareness, data and information sharing, operational coordination, and operational communications.

The exercise was divided into three vignettes, and included prompted swine movements and interstate or state-to-industry communications with each movement. Additional functionalities of the AgConnect® suite were highlighted, and these included: the phylogenetics toolset, mobile health (mHealth) tools and functions, and the Laboratory Capacity Estimation Model. In preparation for the exercise, the players were given hands-on training on the system, and all players and observers were given orientations on swine production and on Secure Pork Supply planning by swine industry attendees. Four state veterinarians (Iowa, Kansas, Colorado, and Indiana) accompanied by their assistant state veterinarian and other staff, served as incident commanders in the exercise. The commercial swine industry was represented and played in the exercise, in communication with the state veterinarians. Representatives from USDA-APHIS were present and interacted as observers with access to all elements of exercise play. Representatives from the Swine Health Information Center observed, and Department of Homeland Security (DHS) Office of University Programs (OUP) along with DHS Science and Technology (S&T) were also in attendance.

All players remained isolated to their respective rooms during exercise play, and gathered back in the large observation room after every movement inject and exercise play, for exchange of commentary and discussion. The exercise was a success, both logistically and functionally. The exercise facility was very well configured, as it is set up as an emergency operations training center, with screens, rooms, and accommodation of incident command organization of responders. Observers were well informed with announcements and visualization of all exercise play within AgConnect®, and had a chance to hear from the State Veterinarians and their staff, in person, after every movement scenario. The State Veterinarians had access to technical expertise for use of their respective AgConnect® dashboards, and could use house phones to make calls and have conference calls. Exercise controller/evaluators were stationed in each room, and the Emergency Management Exercise System (EMES) allowed for timed, e-mailed injects to be distributed to select participants throughout the exercise. The state veterinarians and industry representatives came away from the exercise concluding that AgConnect® was able to quickly translate information to visualization for situation awareness, and that an important aspect of success was the ability for the swine industry to directly share operational and geospatial information directly through the AgConnect® system. The State Veterinarians were also able to inform each other by sharing geospatial visualizations of their outbreak control efforts and status through AgConnect®. The exercise ran on time, and AgConnect® delivered as expected.

Committee Business:

Five resolutions were submitted by committee members and were adopted through motions made, seconded, and passed by voice vote.

Resolution 1 – Resource Typing for Animal Emergency Response

Resolution 2 – Veterinary License Reciprocity in Emergencies

Resolution 3 – Radiological Incident Response and Resources

Resolution 4 – National Foot-and-Mouth Disease Preparedness

Resolution 5 - Termination of AVMA's VMAT Program and Participation in Animals In Disaster and Emergency Response

The meeting was adjourned at approximately 1:00 p.m.