The Committee met on Saturday, October 24, 2015, at the Rhode Island Convention Center in Providence, Rhode Island, from 8:00 a.m. to 1:00 p.m. There were 70 members and 46 guests present. At the beginning of the meeting, the mission statement was reviewed, along with the response to the 2015 CAEM Resolution #1, Radiological Incident Response and Resource and 2015 CAEM Resolution #2, Veterinary License Reciprocity in Emergencies. Members and guests were referred to the USAHA website to view the responses to all of the 2014 resolutions. Fourteen presentations were heard, two of which were panel discussions

Presentations

2014-2015 Highly Pathogenic Avian Influenza (HPAI) Outbreak
Dr. Jon Zack – Director, Preparedness & Incident Coordination Center, USDA, APHIS, VS, SPRS

Dr. Zack gave an overview of HPAI outbreak to include response & recovery efforts, policy updates, and ongoing preparedness. This outbreak was the largest animal health incident in U.S. history with $950 million in emergency funding for response and preparedness for HPAI.

Veterinary Services: National Training and Exercise Program
Dr. Lee Myers, State Federal Liaison for the National Veterinary Stockpile, USDA-APHIS-VS-SPRS

Dr. Lee Myers in the United States Department of Agriculture Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS) Surveillance, Preparedness and Response (SPRS) Unit provided an update on the APHIS VS Emergency Preparedness and Response Training and Exercise (T&E) Program. Progress continues to be made since the program was first proposed at the 2012 United States Animal Health Association meeting.
Dr. Myers reviewed many of T&E events accomplished in the Federal fiscal year 2015. VS delivered 43 training events, and conducted 4 workshops and 1 drill. Additionally, VS representatives participated in 6 exercises sponsored by external organizations.

Dr. Myers emphasized the priorities, objectives, and events contained in the USDA APHIS VS Emergency Preparedness and Response Training/Exercise Strategy and Plan Fiscal Year 2016 – 18 (VS TEP). The 45-member VS T&E team developed the initial draft during its annual T&E planning workshop in April 2015, and lessons learned from the 2015 highly pathogenic avian influenza emergency response were incorporated into the plan in September 2015. The VS TEP provides the framework and process to build the VS-wide T&E strategy and plan in collaboration with external stakeholders and T&E subject matter experts. The plan also provides the roadmap to enhance emergency response capabilities, and identifies T&E priorities and objectives that support the VS emergency preparedness strategy. The plan outlines a multi-year schedule of T&E events linked to each priority and objective, adding practical value.

The VS T&E program continues to establish itself and focus on the VS mission-critical responsibility to prepare for and respond to foreign animal diseases/emerging disease incidents (FAD/EDI). The program is establishing a track record of success beginning with simple, achievable events.

The VS TEP includes three overarching priorities.

1. Build the VS T&E program.
2. Train VS and external stakeholder emergency responders.
3. Exercise VS and external stakeholder emergency responder capabilities.

The following 12 VS TEP objectives are aligned accordingly with each T&E priority.

1.1. Institutionalize the VS T&E program within VS SPRS.
1.2. Solicit input for T&E planning.
1.3. Integrate One Health concepts into future training and exercise events for all VS TEP priorities.
2.1. Leverage existing training and exercise programs to raise awareness and encourage participation.
2.2. Identify training needs, develop training materials, and deliver training for FAD/EDI preparedness and response.
2.3. Promote and support FAD/EDI response training provided by the VS Professional and Development Services. For a complete list of routine emergency preparedness and response training, visit the VS PDS website: http://www.aphis.usda.gov/animal-health/training.
2.4. Train on new and emerging animal disease Foreign Animal Disease Preparedness and Response Plan (FAD PReP) documents.
2.5. Create a model for Incident Command System (ICS) position-specific on-the-job training to facilitate emergency preparedness and response training for VS and external stakeholder emergency response personnel.
3.1. Conduct discussion-based exercises to validate emergency preparedness and response plans and capabilities.
3.2. Conduct a series of drills and functional exercises to validate specific operational procedures and functions.
3.3. Participate and engage in trainings and exercises sponsored by or in collaboration with external stakeholder emergency responders that support the VS T&E strategy.
3.4. Adopt a process for VS T&E improvement planning.

There are multiple events in alignment with and support of each VS TEP objective. The plan identifies for FY 2016 a total of 9 events to build the VS T&E program; 27 events to train VS and external stakeholder emergency responders; and 15 events to exercise VS and external stakeholder emergency responder capabilities. All events engage both VS and external emergency response stakeholders to the extent possible.
Events may be specific tasks or actions, training initiatives, or discussion-based or operations-based exercises. Working groups are formed for each event and are open to VS T&E team members, subject matter experts, and other personnel impacted by the event. Groups meet regularly throughout the year, primarily through virtual means, to continue progress.

VS recognizes the wisdom in developing a T&E strategy and identifying program-wide T&E priorities to assure the emergency preparedness and response mission will continue to be achieved. This process is particularly important in light of the lessons learned from the 2015 highly pathogenic avian influenza emergency response. Implementing the VS emergency preparedness and response strategy will enhance capabilities in the 23 VS FAD PReP critical activities in preparation for the next high-consequence FAD/EDI and/or pest response requiring emergency responders for multiple rotations. The complete VS TEP is available for download from the APHIS VS website.

**HPAI Response Panel Discussion – Lessons Learned**

1. Mr. Mike Starkey – Emergency Planning and Response Director, Minnesota Department of Agriculture
2. Mr. Mark Shearer – Iowa Department of Public Defense, Iowa Homeland Security Emergency Management Division
3. Dr. Linda Glaser – Program Director, Minnesota Board of Animal Health
4. Julie Helm – South Carolina NPIP Coordinator, Clemson University
5. Mr. Gary Flory – Agricultural Program Manager, Virginia Department of Environmental Quality

**Minnesota H5N2 HPAI: Lessons Learned**
Mr. Mike Starkey, Emergency Planning and Response Director, Minnesota Department of Agriculture

Mr. Starkey gave an overview of the lessons learned in Minnesota’s response to HPAI. The response measures for HPAI in Minnesota lasted from March 5 to October 5, 2015 with 9 million birds affected and an economic loss of $650,000. 98 commercial turkey flocks, 6 dangerous contact turkey flocks, 4 commercial layer flocks, 1 pullet flock and 1 backyard flow were affected. Challenges presented by Mr. Starkey included, payment to federal & site contractors, confidentiality issues, need for a dedicated flock/case manager, management of water, and CO2 availability.

**2015 Iowa High Path Avian Influenza Response**
Mr. Mark Shearer, Iowa Department of Homeland Security and Emergency Management

- Snapshot of HPAI geographic dispersion, case numbers and response characteristics
- Review operational challenges and successes
- Industry inputs to protect non-affected operations
- Carcass disposal and landfill issues
- Use of incinerators
- Repopulation and return to operations

**Continuity of Business in the HPAI 2015 Outbreak: Permitting**
Dr. Linda Glaser, Program Director, Minnesota Board of Animal Health

Once Control Areas were established in the poultry dense area of Minnesota, at the end of March 2015, a permitting section to the Incident Management Team was formed to address the need for business continuity. The group quickly transitioned from a Word document and spreadsheet method to using the EMRS2 data system for tracking and storing permit and movement data and generating permit/movement documents.

Using EMRS2 required intensive up front data entry as Minnesota’s poultry premises locations were not previously in the data system and did not have an alphanumeric premises identification number assigned to the location. Once premises were entered into EMRS2 with the required business and investigation data, the permit and movement information could be entered and permit documents readily generated from this system.
In planning for continuity of business in future outbreaks, consider the following:

1) Where does the permitting section fit into the ICS structure?
2) Who makes final decisions on questions of movement?
3) What do you plan to permit – what will not be permitted?
4) Where will information be stored and how will permit documents be generated and transferred to those who need them?

**National Assembly’s HPAI State Permit Working Group**

Dr. Julie Helm, South Carolina NPIP Coordinator, Clemson University

The Highly Pathogenic Avian Influenza (HPAI) permitting working group was formed on April 16, 2015 at the request of the National Assembly of State Animal Health Officials. The charge of the working group was to develop a document summarizing the recommendations for permitting interstate movement of poultry and eggs from a HPAI Control Area, to include frequency of surveillance testing, number of tests per premises and biosecurity procedures for movement. The recommendations were finalized on May 20, 2015, and approved by the National Assembly.

The intention of the working group was to create a document to function as a reference for State Animal Health Officials (SAHO) and their poultry health committees for use during a HPAI incident. This document contains the most basic uniform permitting recommendations. The intent of the working group was not to create new requirements that every state had to follow and was not to rewrite the secure poultry supply plans. These recommendations do not replace or supersede existing movement requirements of receiving States. Normal movement requirements must be met in addition to fulfilling the recommendations below for HPAI Control Area permitted movement.

Recommendations for interstate permitted movement of poultry and eggs out of or within an HPAI Control Area (Infected and Buffer Zones), include:

1. Delay moving live poultry (including hatching eggs) after a new Control Area is established until such time as the Control Area testing of commercial premises is completed.
2. States should avoid placing additional restrictions on interstate movement of poultry and poultry products from outside of the Control Area in HPAI affected States. These recommendations do not supersede existing state regulations or requirements.
3. Traceability information is required for the premises of origin and premises of destination (each premises will need a Federal Premises Identification Number or EMRS will create one).
4. The flock has normal flock production parameters as described in the Secure Poultry Supply Plans (Egg, Broiler and Turkey).
5. All movement should follow biosecurity procedures for Truck and Driver and Product Specific Biosecurity as described in the Secure Poultry Supply Plans (Egg, Broiler and Turkey).
6. The premises of origin is not an Infected, Suspect or Contact Premises (refer to Section 5.5, Epidemiological Investigation and Tracing in USDA’s HPAI Response Plan).
   a. The Incident Commander should determine the need for an epidemiology questionnaire if the flock has normal production parameters and negative tests.
   b. Receiving State may require information from the epidemiology questionnaire prior to granting permission to move.
7. Egg Movements:
   a. Hatching eggs should follow the two day holding procedure as described in the Secure Poultry Supply Plans (Egg, Broiler and Turkey), provided the Control Area testing of commercial premises is completed (refer to #1), and should use the recommended testing procedures (refer to #8).
   b. Table eggs (non-hatching eggs) should follow the two day holding procedure as described in the Secure Poultry Supply Plans (Egg, Broiler and Turkey) and the recommended testing procedures (refer to #8).
8. Testing of poultry should consist of a minimum of two 11-bird AI negative PCR pools per house.
a. The sample size consists of one pool of 11 dead/sick birds sampled per 50 dead birds per house.
b. Frequency of sample collection:
   i. Collect all pools within 24 hours prior to movement, or
   ii. Collect one set of pools within 48 hours prior to movement and the second set of pools within 24 hours prior to movement.

The USDA-APHIS-Veterinary Services, Surveillance Preparedness and Response Services has incorporated the working group’s recommendations into a critical response activities document entitled “Testing Requirements for Movement from the Control Area” and included it as part of the FAD PReP Materials and References for HPAI Response & Policy Information: 2014-2015 Outbreak.

*Commercial poultry premises defined from NPIP §146
1. Meat type chicken slaughter plant (broilers) – 200,000 or more chickens are slaughtered in an operating week (all the broilers that feed that plant are considered commercial),
2. Table egg laying premises – 75,000 or more chickens on a premises,
3. Meat type turkey slaughter plant – 2 million or more turkeys are slaughtered in a 12-month period (all the turkeys that feed that plant are considered commercial),
4. Commercial meat waterfowl/upland game bird slaughter plants – 50,000 or more birds are slaughtered annually (all the birds that feed that plant are considered commercial),
5. Raise for release waterfowl/upland game bird premises (e.g. hunting purposes) – 25,000 or more birds are raised annually on a premises, and
6. Breeder flocks that produce any of the above birds.

2015 HPAI Response - 3D Issues
Mr. Gary Flory, Agricultural Program Manager, Virginia Department of Environmental Quality
Since December 19, 2014, 223 detections of HPAI have been reported across the country resulting in the death—either directly from the virus or in an effort to prevent the spread of the disease—of nearly 50 million birds. The depopulation of infected flocks and the disposal of the associated poultry carcasses created significant challenges for responders. This presentation will discuss challenges and lessons learned from these depopulation and disposal activities.

DEPOPULATION

In recent history, diseased poultry flocks were depopulated using whole-house CO² depopulation. In the early 2000’s fire fighting foam started being used for whole-house depopulation to improve efficiency and address worker safety concerns. Skid-mounted and handheld foaming units had been purchased by poultry companies and state and federal responders. However, the 2015 outbreak highlighted both the need for additional equipment and training for foaming unit operators.
While foaming proved effective for floor raised birds, the method was not appropriate for cage layer operations. For those operations, CO\textsuperscript{2} kill carts were the only available option. With an individual capacity of about 150 birds, the depopulation of operations with greater than a million birds became a slow and labor intensive process. Depopulation activities spanning several weeks and the resulting biosecurity and animal welfare implications have caused many to look for alternative depopulation methods. In response, USDA released its policy on Ventilation Shutdown on September 18, 2015.

DISPOSAL

During recent avian influenza outbreaks poultry carcasses have been disposed of with a variety of methods:
- Burial
- Incineration
- Landfilling
- Composting

Burial

Burial in unlined trenches is the traditional method of carcass disposal which has been used for decades. Though the method is cheap and easy to implement, concerns about groundwater contamination have decreased its use in more urbanized environments and in areas with a shallow groundwater table.

Incineration

Burning carcasses in open pyres drew the public’s attention during the 2001 outbreak of Foot and Mouth Disease in the United Kingdom. In the United States, air curtain destructors and incineration units have been more commonly used to destroy carcasses from flooding and disease eradication efforts. These types of facilities provide more emission controls but are often costly and limited in their treatment capacity.
An air curtain destructor being used to destroy turkey carcasses infected with low pathogenic avian influenza in Virginia in 2002. Photo by Gary Flory

Landfilling

Disposal at regional landfills allows animal carcasses to be quickly removed from the infected farm. Landfilling, like other off-site disposal options, require the transportation of potentially infectious material off the farm which can generate public perception and biosecurity challenges. Preplanning and open discussions with potential disposal facilities is required to mitigate those concerns.

Composting

Composting for disease response was first implemented during an avian influenza outbreak in chickens in Delaware in 2004. In the fall of 2004, researchers in Virginia initiated a demonstration project to evaluate the effectiveness of in-house composting on turkeys. Based on the result of this work, composting was used to control outbreaks of avian influenza in West Virginia and Virginia in 2007. The success of composting during these outbreaks resulted in composting being one of the primary carcass disposal method during the 2015 High Pathogenic Avian Influenza outbreak. In Minnesota for example, 108 of the 109 commercial poultry operations successfully composted their flocks.

Composting’s successes during the 2015 avian influenza outbreak can be attributed to efforts to ensure consistency in implementing the process. SMEs from across the country traveled to each infected farm to ensure the composting process was implemented to effectively inactivate the avian influenza virus. In May, USDA established the USDA Composting Technical Team comprised of SMEs who meet weekly to gather lessons learned, discuss problem sites and to develop a national composting protocol.
Use of APHIS Carcass Management Decision Tool and HPAI 2015
Mrs. Lori Miller, Senior Staff Officer/Environmental Engineer, USDA-APHIS-VS-STAS

During the 2007 H5N1 outbreaks in Asia, APHIS increased planning, preparedness, and exercise activities to improve response capabilities in the US. Part of that effort involved developing carcass management decision tools and online training modules, which have been available on the APHIS website for several years. The tools were exercised in 2012 during a workshop in Denver. Feedback from that workshop and input from a team of federal subject matter experts was used to revise the tools into a Matrix, Decision Loop and Checklist (MLCh). The MLCh Tool differs from the original decision tree in that it covers all species, not just poultry.

During the Spring 2015 HPAI response, disposal decisions in the affected states closely mirrored the recommendations in the original decision tree, favoring onsite options over offsite options requiring transport. The original decision tree favored in-house composting, outdoor composting, and onsite burial; if those options were exhausted, then secure transport to landfill, rendering, or incineration was recommended. Use of transportable technologies onsite was also explored.

The revised MLCh Tool considered all species, so it favored high-capacity disposal options such as landfill, rendering, incineration and composting over open burning and onsite burial due to the likelihood that mass cattle or swine mortalities would overwhelm onsite options quickly. During the 2015 HPAI response, the initial approach to compost onsite was realistic and effective; however, as the outbreak expanded, particularly into egg layer operations, onsite composting was no longer feasible, and the strategies shifted to offsite disposal, as would be expected for large animal response. The lessons learned included recognition that limiting factors for onsite options included poorly suited soils for burial, and an insufficient number of mortality composting experts to ensure proper windrow construction. APHIS is working to expand the pool of composting experts through new training initiatives, and to work with landfill, rendering, and other technology companies to increase our ability to manage mass livestock mortalities.

ICS in Animal Disease Events: Lessons Learned in California – Ideas to Improve Success
Mrs. Lisa Quirroz, Senior Emergency Services Coordinator, California Department of Agriculture
Like many other State animal health entities, the California Department of Food and Agriculture Animal Health Branch has had to overcome a steep learning curve when it comes to melding animal disease response functions with the incident command system (ICS) – and we are still learning. After every response, our personnel have learned from successes and challenges with embracing ICS principles. This presentation will share ideas on implementing ICS for animal disease responses that incorporate many lessons learned. The presentation outlines, step-by-step, a typical California disease response activation and strategies we have implemented to help responders “stay in their lane.”

State Regional Alliances Panel
1. Mr. Jeff Turner, Director of Emergency Management, Texas Animal Health Commission
2. Dr. Greg Christy, Emergency Programs Veterinarian Manager, Florida Department of Agriculture and Consumer Services
3. Dr. Kristen Haas, State Veterinarian and Director of Food Safety and Consumer Protection, Vermont Agency of Agriculture, Food, and Markets
4. Mr. Mark Shearer, Multi-State Partnership Coordinator, Iowa Department of Defense, Iowa Homeland Security Emergency Management Division

Southern Agriculture & Animal Disaster Response Alliance (SAADRA) Update
Mr. Jeff Turner, Director of Emergency Management, Texas Animal Health Commission
Dr. Greg Christy, Emergency Programs Veterinarian Manager, Florida Department of Agriculture and Consumer Services

Southern Agriculture & Animal Disaster Response Alliance (SAADRA) is an interactive collaboration of states at risk from similar natural, intentional, technological, and disease disasters affecting agriculture and animals. Our mission is to strengthen all-hazard capabilities through partnerships with the public, animal and agriculture industries, and every level of government. Both regional and individual state preparedness will be enhanced through collaborative planning, mitigation, response, and recovery efforts that help to ensure the safety and health of its citizens, food systems, agriculture infrastructure, animals, and economy. Thirteen state participate in SAADRA - AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, TX, VA, WV. Greg Christy and Jeff Turner are the current co-chairs.

New England States Animal Agricultural Security Alliance (NESAASA) Update
Dr. Kristen Haas, State Veterinarian and Director of Food Safety and Consumer Protection, Vermont Agency of Agriculture, Food, and Markets

Dr. Kristen Haas provided an overview, history, and current initiatives occurring with NEESASA. Initiatives include recodification of the NESAASA Charter, strategic planning, and HPAI planning. Limitations for moving forward is prioritizing items for consideration in a resource-constricted environment.

Multi-States Partnership for Security in Agriculture (MSP) Update
Mr. Mark Shearer, Multi-State Partnership Coordinator, Iowa Department of Homeland Security and Emergency Management

Mr. Mark Shearer provided any overview of partnership activities and networks and emphasized the planning for a 2018 Multi-State and USDA FAD Full Scale Exercise.

AVMA Update
Dr. Cheryl Eia, Coordinator for Emergency Preparedness and Response

This presentation will provide an update on the AVMA’s Strategy Management Process and the Advisory Panel Pilot program. The Advisory Panel Pilot program model is being tested as a way to increase the efficiency, effectiveness and engagement in the AVMA’s policy-making process by integrating the operations of 9 councils and committees supported by the AVMA’s Division and Animal and Public Health within an Advisory Panel System.

Livestock Emergency Response Plans
The Livestock Emergency Response Plan (LERP) toolkit is part of an effort by the United States Department of Homeland Security (DHS) to develop a seamless system of foreign or emerging animal disease (FEAD) emergency response planning between state, tribal, territorial, and federal jurisdictions. The LERP toolkit is designed to assist state, tribal, and territorial government entities in developing an Emergency Operations Plan (EOP) for responding to a livestock-related emergency such as an infectious or highly contagious foreign or emerging animal disease (FEAD) affecting poultry, exotic, and domestic livestock. The LERP can be in the form of a stand-alone document or as an appendix or Emergency Support Function (ESF) supporting an existing all-hazards plan. In whichever form it is applied, it will be a critical component of a State Emergency Operations Plan (SEOP). For states that already have FEAD plans prepared, this toolkit can be used to review existing documents for completeness and to provide a universal format to follow when updating. The toolkit can also be utilized to frame areas for continuing education within an agency or department. Using the toolkit to guide their efforts, a planning entity might address individual sections of the LERP to identify areas of need for further discussion or training. In any of these applications, this toolkit will assist planners with determining how a state will respond to all stages of a livestock disease emergency management cycle: prevention, protection, mitigation, response, and recovery.

The LERP toolkit has been compiled from the review of numerous existing plans, documents and templates addressing livestock and FEAD emergency response. All formatting for the LERP template is based on the FEMA Comprehensive Preparedness Guide 101 (CPG-101), version 2 “Developing and Maintaining Emergency Operations Plans” and the National Response Framework, Food and Agriculture Incident Annex. LERP integrates concepts embodied in the National Preparedness Guidelines released in September 2007 and is aligned with the 31 Core Capabilities outlined in the first edition of the National Preparedness Goal issued in September, 2011. The LERP toolkit consists of five (5) components: the LERP template, LERP Supplemental Guide, LERP Participant’s Guide, LERP Facilitator’s Guide, and a PowerPoint presentation. The LERP template provides formatting, descriptions, and points to consider for each section of a FEAD response plan. The Supplemental Guide provides additional information for developing each section of the plan along with representative text derived from existing state FEAD plans. The Facilitator’s Guide provides useful checklists and assistance to make the facilitator’s job easier as they lead the planning and development sessions. The participant’s guide follows the LERP template format and contains information which will assist the participant in understanding their role in LERP development. And finally, the PowerPoint presentation is a listing of all of the discussion questions for each section of LERP development. The questions are to lead discussion in certain areas but do not represent all issues that might need to be addressed. Each section can be edited as needed so that each entity can address specific issues that are unique to their FEAD plan. The LERP toolkit is not meant to be a “cookbook approach” to FEAD response planning. It is a tool to be used alongside the many other FEAD response reference documents as state, local, tribal, and territorial government entities develop or update their FEAD response plans.

The LERP toolkit is currently housed and accessible within the library of the FoodShield.org website, the Institute for Infectious Animal Disease (IIAD) “Preparedness and Response” resource page, and by request to K-State’s National Agricultural Biosecurity Center (NABC).

**Committee Business:**

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

**Resolution #1 – National Foot-and-Mouth Disease Preparedness**

The meeting was adjourned at approximately 1:05 p.m.

**Addendums:**

None