

The Georgia Exercise: Rats, Bats, and Feral Cats



**VENESSA SIMS, GA DEPT. OF AGRICULTURE
11TH ANNUAL ONE MEDICINE SYMPOSIUM
RALEIGH, NORTH CAROLINA
DECEMBER 2014**

Presentation Topics



- What is Biowatch?
- The importance of engaging the agriculture/animal health community to help maintain comprehensive surveillance within the **All-Hazards Response**
- Findings of the Georgia Emergent Disease exercise
- Next Steps

What is BioWatch?



- A nationwide bio-surveillance system
- Operated through a federally managed, locally implemented partnership
- Detects the presence of specific pathogens
- Offers guidance, training and exercises to ensure an integrated, orchestrated response

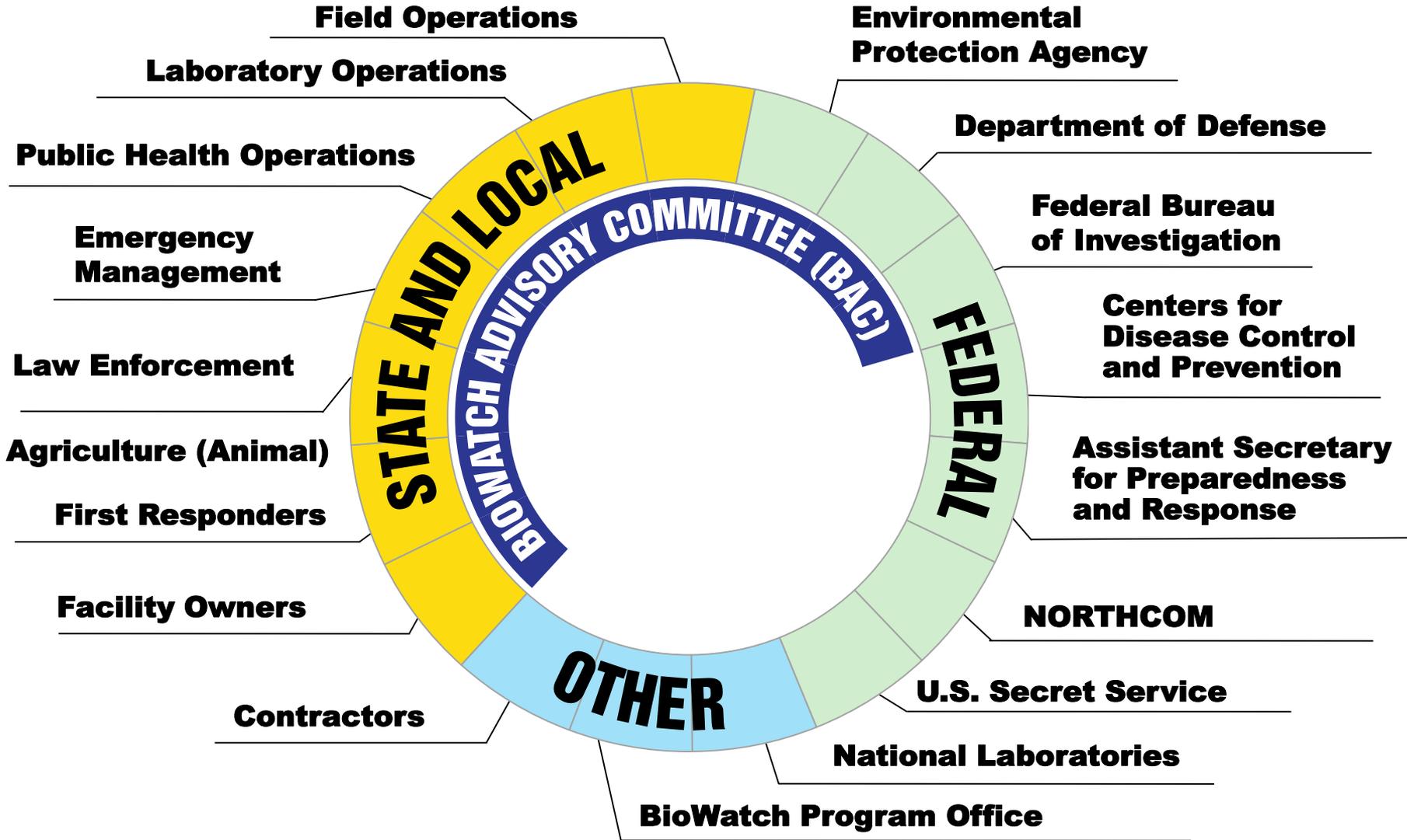


Why it's Important to **AGRICULTURE?**



- **Agriculture (animal)** health officials notified hours to days before symptoms appear
- Preventive/protective measures and additional surveillance can be requested and delivered through an orderly process
- Earlier action can mean lives saved, illness limited
- Ongoing participation means **agriculture** is more ready for a range of all-hazard emergencies
- Security is enhanced through preparedness and training

BioWatch Network



BioWatch, an All Hazard Response

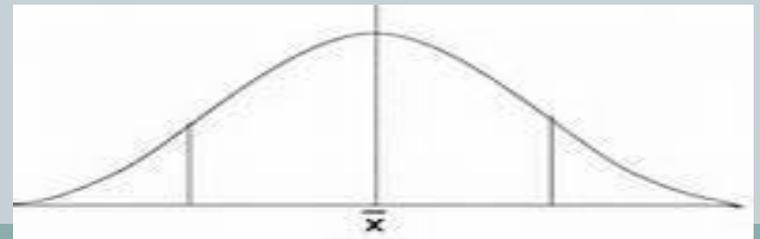


- “The Veterinary Response? Why is it important?”
- All Hazard response calls for bio-surveillance and medical prophylaxis for the vulnerable population
- Zoonotic agents and the vulnerable population.
Human population $\div 2.5 \times 58.9\% \times 2 =$
vulnerable companion animal population
- Not including this group = re-exposure from an unmonitored, untreated vulnerable population
- Not including this group = inaccurate messages to the public

THE SOLUTION!



- Identify existing means of surveillance and prophylaxis of the vulnerable animal population
- Reportable disease and notifiable disease policy and procedure.
- Who does the surveillance and prophylaxis for this vulnerable population.
- Develop surge capability in the notification process
- Develop a “just in time training” capability for extraordinary events.
- **TIME IS OF THE ESSENCE!**



Reportable Animal Diseases in Georgia



Reportable Animal Diseases in Georgia

<http://agr.georgia.gov>



Report **IMMEDIATELY** clinical diagnosis, laboratory confirmation, or reasonable suspicion of the following diseases to the Georgia State Veterinarian at (404) 656-3667 or 1-800-282-5852 (primary) or to the U.S. Department of Agriculture Area Veterinarian in Charge at (770) 761-5420 (secondary).

African Horse Sickness

African Swine Fever

Avian Influenza*

Classical Swine Fever (Hog Cholera)

Contagious Bovine Pleuropneumonia

Contagious Ecthyma (Soremouth)

Foot and Mouth Disease (any type)

Heartwater

Lumpy Skin Disease

Newcastle Disease (Exotic)

Nipah Virus

Peste des Petits Ruminants

Plague*

Rift Valley Fever

Rinderpest

Screwworm

Sheep Pox and Goat Pox

Swine Vesicular Disease

Vesicular or Ulcerative Conditions

Vesicular Exanthema

Vesicular Stomatitis (VS, any type)

†Report **IMMEDIATELY** suspicious disease conditions including, but not limited to, any vesicular disease; mucosal disease; abortion storms in livestock of unknown etiology; undiagnosed bovine central nervous system conditions; unusual number of acute deaths in livestock; unusual flies, mites or ticks in animals; and any apparently highly infectious or contagious animal condition of unknown etiology.

†Report **IMMEDIATELY** laboratory confirmation of unusual presentation, unexplained increase in number of cases or unusual trend of aflatoxin, botulism* or T2 toxin that is suspected to be caused by bioterrorism.

†Reports of any of the above will result in immediate quarantine of the premises.

*Potential agent of bioterrorism

Reportable in humans and animals

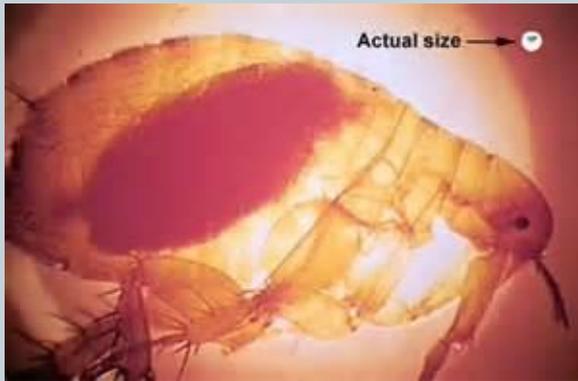
List of reportable diseases in Georgia and the authority for the Commissioner of Agriculture to declare other animal diseases to be reportable is referenced in Georgia statute **O.C.G.A. 4-4-6**.

Who must report?



- Veterinarians, veterinary technicians, lab technicians, wildlife biologists, and animal owners are required to report.
- Depending upon the disease or syndrome, reporting is required whether a **clinical diagnosis, laboratory diagnosis, or just a reasonable suspicion of a disease is present.**
- Disease Reporting goes to the **Offices of the State Veterinarian** or the **U.S.D.A. Area Veterinarian in Charge.**

Yersinia pestis aka “the Plague”



YP Bubonic Plague-Wikipedia

REPORTABLE DISEASE

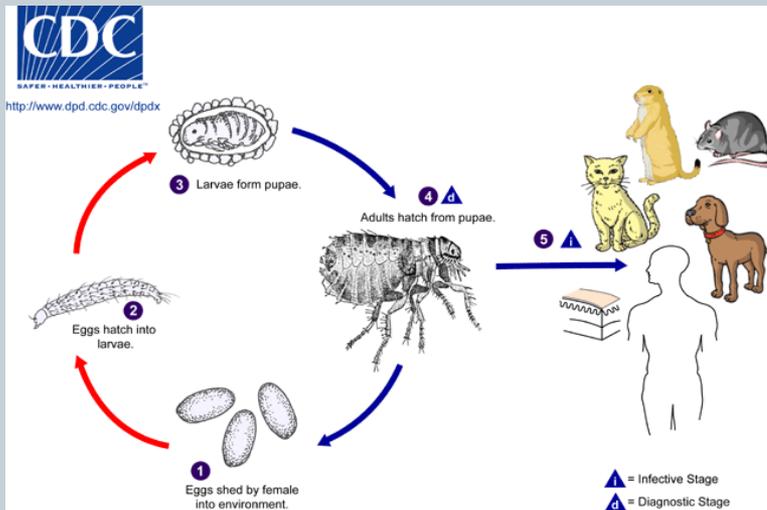


usu.edu

- Plague: In urban areas or places with dense rat infestations, the plague bacteria can cycle between rats and their fleas
- Primarily found endemic in the SW portion of the US
- Transmission: **Flea bites, contact with contaminated fluid or tissue, or infectious droplets**

The problem with Fleas

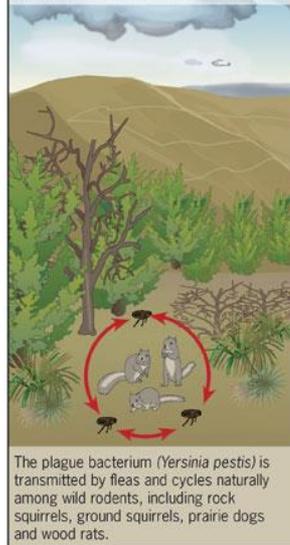
- Fleas have 4 stages in their life cycle
- Need a live host
- Remain dormant in environment



Plague Ecology in the United States

Plague in Nature

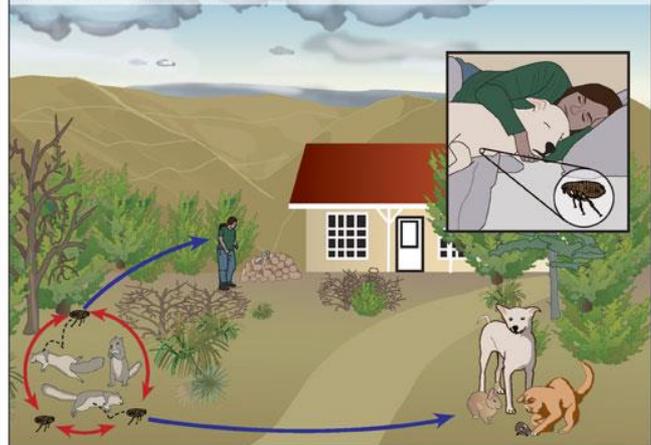
Plague occurs naturally in the western U.S., especially in the semi-arid grasslands and scrub woodlands of the southwestern states of Arizona, Colorado, New Mexico and Utah.



The plague bacterium (*Yersinia pestis*) is transmitted by fleas and cycles naturally among wild rodents, including rock squirrels, ground squirrels, prairie dogs and wood rats.

Plague in Humans

Occasionally, infections among rodents increase dramatically, causing an outbreak, or epizootic. During plague epizootics, many rodents die, causing hungry fleas to seek other sources of blood. Studies suggest that epizootics in the southwestern U.S. are more likely during cooler summers that follow wet winters.



Humans and domestic animals that are bitten by fleas from dead animals are at risk for contracting plague, especially during an epizootic. Cats usually become very ill from plague and can directly infect humans when they cough infectious droplets into the air. Dogs are less likely to be ill, but they can still bring plague-infected fleas into the home. In addition to flea bites, people can be exposed while handling skins or flesh of infected animals.

CS225948

Where it All began....



It started with a raccoon



And quickly segued into **rats, bats
and feral cats!**

Impacts of animals, wildlife and pests



- Who has operational responsibility for each?
- Not addressing each segment can contribute to the human health impacts and response thereof
- Need for increased surveillance: animals & humans
- Need to assess pest footprint: host/carriers will help to proliferate the disease



Who are you talking to?

Add ANIMALS to the plan



- 1) May 14, 2013:** Georgia Vets learn about Biowatch and their important role in surveillance at the GEMA State Operations Center; Presentation by Dr. Michael Walter, BioWatch Program Manager
- 2) Nov. 9, 2013:** Animal disease/terrorism sequence during the GVMA Conference
- 3) May 31, 2014:** Animal Decontamination Training at UGA
- 4) June 18, 2014** GVMA Board briefed regarding exercise and veterinary participation at 2014 Annual Conference in Sandestin, FL
- 5) July 2014:** Notification Drill: two drills, second includes SUPHER implementation
- 6) July 22, 2014:** Plague Tabletop Exercise

2013 GVMA Conference

	Respiratory <i>Lesley King, MVB,</i> DACVECC, DACVIM	Vector Borne Diseases <i>Leah Cohn, DVM, PhD,</i> DACVIM	Typical or Terrorism? What's a veterinarian to do before, during and after?
8 - 9:40 am	Pulmonary edema symptoms: why does it occur, and how best to treat it	The increasingly complicated story of ehrlichiosis	Veterinary basic disaster life support for biological events – <i>Ed Rollor</i>
10:20 am - noon	Managing pleural space disease: a case-based approach	Cytauxzoonosis urinary track infection	BioWatch: A bio-surveillance system for Georgia – <i>Paul Williams, DVM</i>
Noon - 1:30 pm	LUNCH IN EXHIBIT HALL		
1:30 - 3:10 pm	Behavior <i>Lynne Seibert, BS, DVM,</i> MS, PhD, DACVB Successful behavior modification techniques	Other vector transmitted infections of regional relevance	Emergency and critical care in disaster events - <i>Tim Crowe, DVM DACVS, DACVECC</i>
3:20- 4:10 pm	Case discussions of anxiety conditions	Pathogens of CIRDC: more than bordetella	Nuclear and radiological incidents: if Georgia has a fukushima – <i>Cham Dallas, PhD</i>

Animal Decon Training

Decontamination Training for Veterinary Professionals

Class date: Saturday, May 31, 2014

Class location: Classroom sessions and hands-on sessions to be held in Athens, GA at the University of Georgia Health Science Campus, Russell Hall, Room 217

Target Audience: Reserve Veterinary Medical Corp., Veterinarians, Veterinary Technicians, Department of Agriculture

Class size: 24 participants

Class Times: 9:00 am – 5:00 pm

Class preparation (recommended, but not necessary):

Basic Disaster Life Support for Veterinary Professionals

Advanced Disaster Life Support for Veterinary Professionals

IS 100, 200, 700 and 800

GVMA Continuing Education Credits: 7 hours

Students should bring a dry change of clothes for wearing under the PPE.

Please bring old clothes and shoes that you do not mind getting dirty and wet for the decontamination exercise. You will be getting wet!

Please bring rubber boots if you have a pair for the decon suit.





Committee Formation



- Health Security Advisory Committee
- Veterinary Subcommittee
- Laboratory Subcommittee
- Communications Workgroup

Interagency communication and coordination has strengthened as a result of the BW planning committee work and through the subcommittee creation.

Contact List



- ❖ Georgia Veterinary Medical Association (GVMA)
- ❖ Veterinary Medical Reserve Corps
- ❖ USDA APHIS Veterinary Services & Wildlife Services
- ❖ Southeastern Cooperative Wildlife Disease Study (SCWDS)
- ❖ GDA Structural Pest Control Division
- ❖ Pest Control Operators
- ❖ Wildlife/Zoos/Emory Yerkes
- ❖ Diagnostic Labs
- ❖ National Animal Health Laboratory Network (NAHLN)
- ❖ Animal Control and Georgia Animal Control Association

It is all about the message



- SUPHER Call Development....growing pains
 - Joint Effort: GDA & Public Health
 - Limit the information to 2 mins max, 1 min for SUPHER line (short and to the point, refer to additional websites for further information)
 - Incorporating specific “instructions” and expected “action items” into email communications for the notifications/call to action
- Coordinating with the PIO/Risk Communicator (Eric Jens, Project Lead)
- Update current message maps to include animal information
- Dark Sites: pre-populated messages
- Utilization of HSIN or other sites for information sharing in a secure zone

SUPHER Call

Pre-notification



- ✓ An EXERCISE was conducted on July 10th wherein veterinarians & pest control board members will receive a notification from GVMA that *Yersinia pestis* has been detected (through an intentional release) in the metro Atlanta area.
- ✓ Veterinarians & Structural Pest Control representatives were requested to call the Georgia Surge Public Health Emergency Response (SUPHER) toll-free phone line (1-888-357-0169) when directed to receive information/instructions.

Notification Information



This number will provide veterinarians with information about:

- 1) **The event**
- 2) **How to manage ill animals**
- 3) **Where to refer ill humans**
- 4) **Recommendations for animals or humans that have been exposed but are not ill.**

SUPHER CALL Messages



Veterinarians will be requested to call the Georgia Surge Public Health Emergency Response (SUPHER) toll-free phone line (1-888-357-0169) when directed to receive information/instructions.

- **582 total calls involved with SUPHER, 82 routed to Clayton County Health Department to speak to a representative. (15% of calls)**

Request to stand up SUPHER, 2 hour lead

Post Comms Drill Survey



- After the exercise, a survey link was sent to elicit feedback on the utility of SUPHER hotline:
 - **150** responses were gathered from the survey
- Stressed that:

“THIS WILL ONLY TAKE A COUPLE MINUTES OF YOUR TIME AND WILL PROVIDE US WITH SOME MUCH NEEDED FEEDBACK ON THE UTILITY OF THIS MEDIA.”

Survey Questions cont.



Q5: Which messages did you select to listen to?

Answer Choices	Responses	
★ Message Option 1 - More info about the event and the agent	67.33%	101
★ Message Option 2 - More info about the best approach to sick animals	40.67%	61
Message Option 3 - Information about exposed or infected people	16.00%	24
Message Option 4 - Information about what to watch for if a person or an animal is exposed but are not sick	15.33%	23
All of the above	28.00%	42

Survey Questions cont.



Q10: Do you think that the SUPHER phone system is an effective way for Public Health and the Department of Agriculture to provide Information to you during an emergency response?

89.26% YES

**SUCCESS OF THE SUPHER PHONE
SYSTEM AS A MODE OF
COMMUNICATION!**

Potential Event Outreach Communications



- **Pest Control education:** animals and environment
 - Work with veterinary medical provider and pest control operators for complete flea control treatment options

- **Pesticide abuse prevention:**

“Thousands of people each year report to poison control centers and emergency care clinics after being poisoned by pesticides.

Children are likely to be more vulnerable to pesticide poisonings than adults because they spend more time close to the ground or floor where pesticides are applied, and their growing bodies, including the brain and reproductive organs, may be altered in long-term or permanent ways after being poisoned.

Many of the pet flea and tick products sold in grocery, drug and pet supply stores, even when applied as instructed on the box, can cause serious health consequences to pets and humans.”

(<http://www.nrdc.org/health/pesticides/>

-National Resources Defense Council)

Exercise Lessons Learned



- ✓ Gained a more directed contact list...will grow when response phase entails. Ensure you have included all the stakeholders
- ✓ Important to have redundant methods of communication: if people aren't checking email, time is of the essence; pick up the phone and verify information transmission
- ✓ Veterinary Medical Reserve Corps (VMRC) may be a great group to look at to work the SUPHER call lines
- ✓ Training to SUPHER Hotline Agents and SME volunteers



Lessons Learned



- **IMPORTANT TO BE PREPARED FOR THE PRESS!**

- Notable Quote:

Dr. Jamie Umber—“**Do you have any idea when your first press conference will be?**”

PIO Response—“**Ideally it will be 5 minutes after the press asks for it.**”



Exercise Lessons Learned cont.



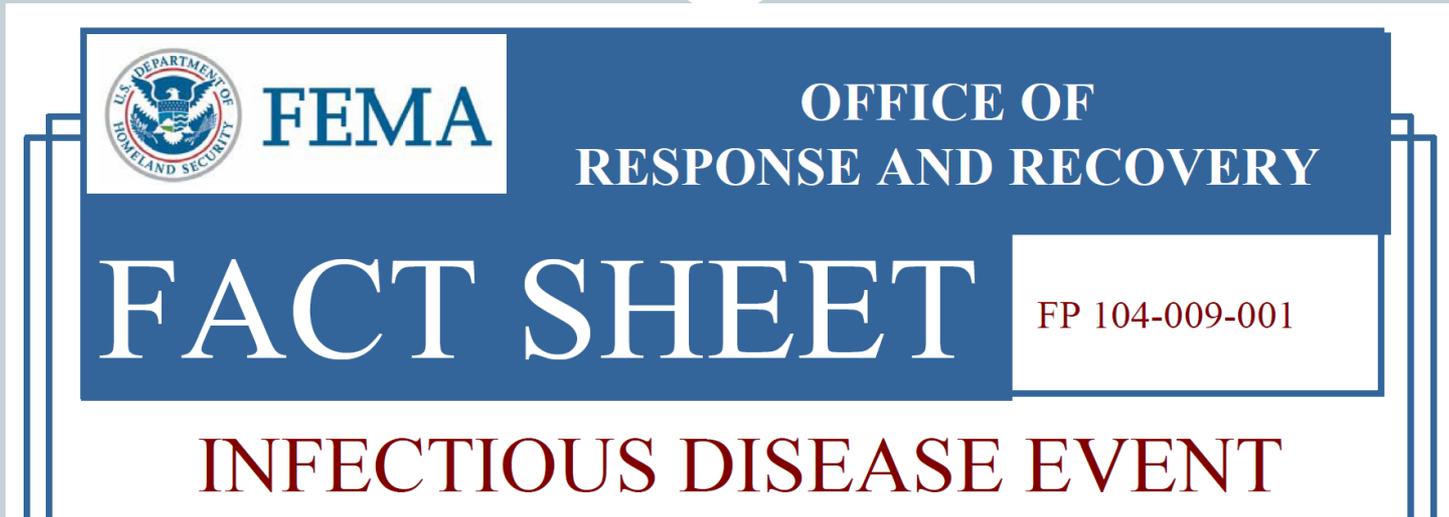
- ✓ Work on pre-populating “Dark Site” information
- ✓ Finding the balance of information flow between BAC and animal health/veterinary community
- ✓ NAHLN as surge lab support for animals
- ✓ Secure method to collect animal related surveillance data in one location is important to determine & for situational awareness

Exercise Lessons Learned cont.



- ✓ Practice (exercise) collecting data and develop a protocol for sharing securely
- ✓ Practice sample transportation coordination and implementation, MOU development, surge protocols, test who is involved
- ✓ Exercise validated the draft appendix “Multi-Agency Animal Health and Veterinary Response to BioWatch Actionable Result and Zoonotic Agent”

Updates to funding for animal response!



- FEMA may not duplicate assistance provided or available under the authority of another federal agency or from insurance. Other federal agencies, including but not limited to HHS and its CDC, have authority to provide assistance to support jurisdictions during infectious disease events.
- **Household Pet Sheltering in accordance with FEMA Policy 9523.19 *Eligible Costs Related to Pet Sheltering and Evacuation.***
- **Containment Actions Related to household pets in accordance to CDC guidelines.**

Next Steps



- **Transportation Planning:** Ebola Virus Disease (EVD) Response helped to drive the transportation planning for emergent disease events in Georgia
 - Partnership between local ACOs and the UGA under guidance of GDPH and GDA; training slated for January 2015
 - Towns County Ebola TTX, December
- **One Health Collaboration Methods Training Course,** Minneapolis, MN May 2015 (see USDA ESF 11 Coordinators for more details)
- Use of **HSIN** for document storage and situational awareness/communications
- **Dark Site** population

Q&A



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**One Health=
All Hazards
Response**

