**Carcass Disposal: A Comprehensive Review**

National Agricultural Biosecurity Center Consortium
USDA APHIS Cooperative Agreement Project
Carcass Disposal Working Group

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Chapter

11

# Regulatory Issues & Cooperation

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# Abbreviations

| | |
|---|---|
| BOAH | Indiana Board of Animal Health |
| CEMP | comprehensive emergency management plan |
| DAD | dead animal disease |
| DHS | Department of Homeland Security |
| FDA | Food and Drug Administration |
| FMD | foot and mouth disease |
| ICS | Incident Command System |
| IDEM | Indiana Department of Environmental Management |
| ISDH | Indiana State Department of Health |
| MOA | memorandum of agreement |
| MOU | memorandum of understanding |
| NIMS | National Incident Management System |
| SEMA | State Emergency Management System |
| SOP | standard operating procedure |
| USDA | United States Department of Agriculture |

# Section 1 – Key Content

Not all potential problems can be anticipated and addressed in advance of a major biosecurity event, but two overall actions which might prevent a large-scale animal disaster from taking larger tolls are education and facilitation.

Factors related to education include:

- Better understanding of the Incident Command System (ICS) by agricultural industry leaders and participants.
- Better understanding of the ICS, standard operating procedures (SOPs), and agriculture by county governments and agricultural groups.
- Better understanding of agriculture by the emergency management and county government systems.
- Better understanding of agricultural disaster response by state and local agencies (public health, legal, etc.).

A primary factor related to facilitation includes:

- Encouragement of periodic (annual or semi-annual) meetings at the state level to discuss specific operational, legal, and future research needs in the area of animal disaster management.

In Indiana, for example, two specific actions will enhance the response efforts during a major disaster. First, acting agencies need to know they are part of the Comprehensive Emergency Management Plan (CEMP). Second, more people within agencies should have a comprehensive awareness and understanding of all others involved, in addition to understanding their own agency's SOPs. In order to enhance the functionality of the CEMP, the State Emergency Management Agency (SEMA) also incorporates the use of the ICS during the management of a disaster. At the time of writing, Indiana's SEMA was just learning how the ICS will evolve to the National Incident Management System (NIMS). In 2003, US President George W. Bush issued directives which provide the Secretary of Homeland Security with the responsibility to manage major domestic incidents by establishing a single, comprehensive national incident management system. The introduction of the NIMS will not change the recommendations of this document, but rather enhance the possibilities of these recommendations being implemented. The key is how thoroughly the NIMS is utilized from federal to state to local agencies.

An idealistic approach to a disaster would be to know, in detail, what needs to be done, what protocols need to be enacted, and who is going to take the lead. However, no real-life disaster plays out as a textbook example. General disaster plans are created with a number of annexes and SOPs attributed to specific situations. Regardless of the tragedy or the number of agencies involved, there are several areas that should be addressed to achieve a higher level of preparedness and response:

- An interagency working group should be created that meets periodically (e.g., at least two times a year) and consists of at least the state environmental, animal health, public health, contract service, emergency management, extension service, transportation, and wildlife agencies.
- An analysis should be conducted of the agencies' (state and county) awareness level of the functionality of the CEMP and its components, as well as the overall functions of the ICS. Have enough agencies been included? Are there enough training opportunities for agency employees? Do the involved agencies have a well-established representation of their SOPs within the annexes of the CEMP?
- A training program should be established that:
  - Requires ICS training for all agencies involved in the CEMP—state and county level. The training should include enough people from various agencies to ensure a widespread understanding of the ICS and various agencies' roles.
  - Establishes programs at the county level to bridge the gap between the legal system and agricultural issues in a biosecurity event.

Results of a roundtable discussion demonstrated that (1) more could be known about how critically involved agencies will react to a large-scale animal carcass disposal situation, and (2) in an environment of short-staffing and high workloads, agency personnel will likely not place a high priority on planning for theoretical animal carcass disposal issues.

Therefore, to facilitate planning efforts and provide structure for interagency discussions and exercises, research into (and summarization of) the actual laws, regulations, guidelines, and SOPs of key agencies is warranted on a state-by-state basis.

This research is critical to the development of comprehensive plans for state and county governments to more easily identify their roles. These could be used in training programs for state and local agencies to develop pertinent SOPs and memorandums of agreement.

# Section 2 – Agency Involvement in Emergency Response

The history of massive animal carcass disposal disasters in the US and other countries indicates many interagency issues and possible sub-disasters for those agencies if steps are not taken ahead of time to anticipate problems. For example, the foot and mouth disease (FMD) outbreak in Great Britain in 2001 showed how a lack of cooperation between jurisdictions and local and national agencies resulted in:

- Extended disease control issues.
- Loss of human lives (suicides).
- Complete change of a national agency. (The UK's Ministry of Agriculture, Fisheries and Food became the Department for Environment Food and Rural Affairs.)

While not all potential problems can be anticipated and addressed in advance, two of the actions that might prevent a disaster from taking larger tolls are education and facilitation.

Factors related to education include:

- Better understanding of the Incident Command System (ICS) by agricultural industry leaders and participants. Note: The ICS will probably evolve into the National Incident Management System (NIMS) in 2004. But until NIMS is adopted nationwide by state emergency management agencies, this report uses the term ICS. The NIMS movement will use the same basic concepts as ICS. NIMS uses multiagency oversight that President George W. Bush provided with the unified Department of Homeland Security (DHS). The movement from ICS to NIMS will enhance the recommendations of this report.
- Better understanding of the ICS, standard operating procedures (SOPs), and agriculture by county governments and agricultural groups.
- Better understanding of agriculture by the emergency management and county government systems.
- Better understanding of agricultural disaster response by state and local agencies (public health, legal, etc.).

A primary factor related to facilitation:

- Encouragement of periodic (annual or semi-annual) meetings at the state level to discuss specific operational, legal, and future research needs in the area of animal disaster management.

## 2.1 – Overview of the Problem

When a disaster strikes, a number of agencies respond, depending on the type of disaster and its magnitude. When multiple-agency involvement becomes a factor, the efficiency of interagency relations and communications are important. Such coordination is a key component of a successful outcome. Several questions -- What works?, How

does it work?, and What should be implemented? – are important when examining ways to strengthen the existing infrastructure of state disaster responding agencies.

In the event of a major disaster, proactive interagency coordination will aid in the response efforts, whereas the lack of coordination will hinder the progress of necessary actions. Specifically, steps taken within agencies to provide SOPs that enhance an agency's response, as well as interagency response, are critical to successful outcomes.

## 2.2 – Background in Emergency Response – Indiana Example

In December 2001, the Indiana State Emergency Management Agency (SEMA) put into effect a revised version of the Comprehensive Emergency Management Plan (CEMP). The CEMP is a checklist requiring all state agencies to develop and implement SOPs and standard operating guides. Its function is to outline expected protocol for disasters most likely to affect Indiana, designate the primary coordinating agency for a given disaster, and determine the supporting role of other agencies (SEMA, 2001).

In Indiana, two actions will enhance the response efforts during a major disaster. First, acting agencies need to know they are part of the CEMP plan. Second, more people within agencies should have a comprehensive awareness and understanding of all others involved, in addition to understanding their own agency's SOPs. In order to enhance the functionality of the CEMP, SEMA also incorporates the use of the ICS during the management of a disaster.

The ICS is a standardized response management system. As an "all hazard – all risk" approach to managing crisis response operations as well as non-crisis events, this system is organizationally flexible and capable of expanding and contracting to accommodate responses or events of varying size or complexity (NOAA).

The ICS has four functional areas:

- Operations.

  This area includes all activities directed toward reducing the immediate hazard, controlling the situation, and restoring normal operations.

- Planning.

  This area includes the collection, evaluation, dissemination, and use of information relative to the development of the incident and the status of resources, and creation of an action plan.

- Logistics.

  This area provides all support needs, orders all resources from off-incident locations; and provides facilities, transportation, supplies, equipment maintenance, meals, communications, and medical services.

- Finance.

  This area tracks all incident costs and evaluates the financial considerations of the incident (Merlin, 1999).

In order to pull all elements of disaster management together, SEMA takes a top-down approach. A general response plan is developed for disasters most likely to take place in Indiana. For each plan, a number of specific disaster situations are addressed. To deal with these particulars, annexes are created. Certain instances require the elaboration of annexes or the narrowing of specific responsibilities to agencies or organizations. At this point, an SOP is created for more finite guidance to the annex. Overall, the ICS provides a flexible structure to deal with changing disaster scenarios and the various annexes/SOPs that apply.

NOTE: At the time of writing, Indiana's SEMA was just learning how the ICS will evolve to the NIMS. In 2003, US President George W. Bush issued directives which provide the DHS Secretary with the responsibility to manage major domestic incidents by establishing a single, comprehensive national incident management system. The introduction of the NIMS will not change the recommendations of this document, but rather enhance the possibilities of these recommendations being implemented. The key is how thoroughly the NIMS is utilized from federal to state to local agencies (White House, 2003).

## 2.3 – Methods and Process

The initial step in considering interagency coordination was to design a high-magnitude disaster on paper (Appendix A) that would demand the involvement of a number of agencies from a variety of areas. The scenario used in this project was called Dead Animal Disease (DAD). The intention was to create a situation which placed the audience at a specific point – two weeks into an unknown animal disease with an anticipation of a massive carcass disposal – that would present a number of unanswered questions.

The second step was to organize a roundtable discussion that would provide the agencies with an opportunity to come together as a group and discuss the expected roles and responsibilities of each agency during the hypothetical disaster. The following agencies participated in the project:

- County-Level Board of Health
- Indiana Board of Animal Health (BOAH)
- Indiana Counter-Terrorism and Security Council
- Indiana Department of Environmental Management (IDEM)
- Indiana Department of Natural Resources
- Indiana Office of the Commissioner of Agriculture
- Indiana State Chemist Office
- Indiana State Department of Health (ISDH)
- Indiana SEMA
- Indiana Public Health Association
- Purdue Animal Disease Diagnostic Lab
- Purdue University Cooperative Extension Service
- US Attorney General's Office
- US Department of Agriculture (USDA) Farm Service Agency

Each participant was provided the scenario in advance. In addition, they were asked to answer a list of questions (Appendix B) regarding their roles and actions for the CEMP at two weeks into the disaster. These answers were collected, organized into one document, and mailed to everyone for their review prior to the discussion.

The individuals who participated (Appendix C) in the discussion were directors from various areas of their respective agencies, including administration, communications, and operations. All participants were chosen based on the leadership role they would play the moment their agency became involved in the response efforts.

At the onset of the roundtable discussion (Appendix D), individuals were allowed the opportunity to share additional information in regard to their previous responses. At this point, many questions were raised as to who would be responsible for what and how it would be accomplished.

As the discussion continued, the group was asked to consider the areas of cooperation among responding agencies, as well as future actions that should be considered in order to improve interagency coordination.

All participants provided valuable information in regard to their agency's roles and responsibilities during the course of the hypothetical animal disaster. Much information was provided for consideration, identification, and, in some cases, realization for the first time by others involved. For the most part, concentration fell on three main areas: response, communication, and education. The following are a number of comments and questions that were discussed as a group:

### Response

- While BOAH and SEMA know who is in charge, do a critical number of other agencies know who is in charge?
- Who should formulate and make a public announcement at the appropriate time?
- What is the level of public health significance of an agricultural event?
- What audiences are affected? They have a right to know what is taking place, and in the event of quarantine, they will demand freedom of movement and commerce.
- Would initial actions and decisions be committee-based?

- How will staffing needs be fully met?
- At what time is it appropriate for an agency to begin responding?
- Should the subject matter expert and the jurisdictional authority be the same person?
- What are the legal and jurisdictional issues? What do you legally have the right to do?
- SEMA will prepare and distribute situational reports of other agencies as a way of sharing information.
- Planning for too narrow of a perspective puts preplanning resources in the wrong place. It would be impossible to have a specific plan for every incident; sometimes what status quo has to be enough.
- Perhaps the memorandums of agreement (MOAs) take precedence; overall, it is the continuity of government to show the agreement of function and cooperation.
- Considering the cooperative agreements as well as identifying possible cooperative research that exists—in many ways, this is already being done with carcass disposal in regard to land layout and site identification.

## Communication

- Animals and animal by-products leaving Indiana will be considered tainted. We must communicate to the public the real health risks and actions taking place to remove the risks and restore a healthy food supply.
- Communication is the key factor throughout the entire situation—a communication center has to be up and ready, first and foremost.
- When something is unknown (e.g. DAD), offering a timeline for identification could be nearly impossible.
- The sharing of information from one level to the next should be kept consistent among multiple agencies.

## Education

- Appropriate agencies with proven records should be utilized for public education.
- Educational efforts are key to the cooperation of the affected public during necessary response efforts. Examples include: educating people who could be inhibitors to the eradication of the disaster at hand, informing people of the possible threats they could create by moving their animals, and educating people on the safety of the environment around infected areas/farms (i.e. water/fish from nearby streams).
- Leaders/figures who need to be key players in developing plans and communications should be better educated in the decision-making process.
- The Food & Drug Administration (FDA), USDA, and Cooperative Extension Service are in prime positions to serve as resources of information and education.
- Every county should have emergency response training in place.
- All agencies can learn from past events: Ralstonia solanacearium, race 3 biovar 2 – disease of geraniums (2003), Monkey Pox (2003), and FMD (Britain, 2001). In the Ralstonia situation, USDA needed a quicker confirmation and action plan that was communicated clearly to all involved agencies. In the Monkey Pox situation, the communications from the Department of Health were not activated quickly enough because they assumed it was not human health-related and the FMD issues were explored at the beginning of this document. But all three situations provided insights and learning opportunities as to how agencies would act (or not act) at the finding of an outbreak.

## Recommendations

- Strengthened cooperation is needed not only between government agencies but also with industry and the organizations representing the public.
- Take advantage of resources available for use where needed in the response to a disaster (i.e.

superior FDA and Environmental Protection Agency labs).

- Providing reassurance to all those concerned could mean taking actions that are not necessary for the event, but necessary for public easement. Actions which deal with perceived issues as well as real issues and communicating that message are necessary to reassure the public.

## 2.4 – Strategies to Deal with Issues

The hypothetical event (DAD) was directly animal-related, which automatically placed BOAH as the lead agency. However, as events unfolded, other areas of expertise were in demand. Because the agent causing the animals' sickness and subsequent death was unknown, the testing capabilities of the Purdue Animal Disease Diagnostic Lab were required. In addition, because approximately 37,000 animal carcasses required handling and disposal, the resources of contracted companies and agencies, such as the IDEM, were required.

Oftentimes, certain assistance was necessary due to events that take place indirectly to the overall disaster. The ISDH should be called upon for three initial reasons:

- The agent/disease was unknown, raising the question of whether or not it was zoonotic, which presents the consideration of how it could affect humans.
- A massive carcass disposal issue was ensuing, which inevitably creates a human health and safety issue.
- Such a large disaster would find its way to the media outlets, causing a possible public perception of fear and concern about such things as the food and water supply. (NOTE: as identified in past exercises, additional agencies are brought into the mix at the request of the lead state agency or at the recommendation of SEMA based on past experience.)

After examining the collected information and considering the open-ended questions posed to agencies at the two-week point in the animal disaster scenario, the next step was to consider what currently works in the state of Indiana. Relationships between agencies with well-defined responsibilities work well during a disaster. For instance, in the case of a known animal disease outbreak, BOAH and SEMA establish a teamed response with the necessary chain-of-command organization quickly in place through the common practice of the ICS.

In the instance of the animal disaster scenario used in this project, BOAH and SEMA would be the initial organizers. As the events of a disaster continue to unfold, more responding agencies are required to become an integral part of the ICS. However, some key agencies may not have a good understanding of how this system functions. As a result, the organization of the four functioning ICS areas (operations, planning, logistics, and finance) potentially could be slowed.

State agencies are working parts of the emergency response system, but those at the local level are involved as well. In the DAD disaster scenario, the incident was contained within a 25-mile radius of the Indianapolis airport. As a result, county law enforcement and emergency personnel were involved from the beginning and/or as events unfolded. Such involvement demonstrated an overlapping of MOAs of the local or county agencies with the functionality of the CEMP at the state level. This will result in local action versus state action. For example, as the number of dead animals increases, carcass disposal issues will need to be addressed, which would result in possible local jurisdictional conflicts and authority issues between county and state agencies. In addition, county governments may not have a good understanding of ICS and agriculture's specific needs.

## 2.5 – Outcomes

An idealistic approach to a disaster would be to know, in detail, what needs to be done, what protocols need to be enacted, and who is going to take the lead. However, no real-life disaster plays out as a textbook example. General disaster plans are created with a number of annexes and SOPs attributed to specific situations. Regardless of the tragedy or the number of agencies involved, there

are several areas that should be addressed to achieve a higher level of preparedness and response:

- An interagency working group should be created that meets periodically (e.g., at least two times a year) and consists of at least the state environmental, animal health, public health, contract service, emergency management, extension service, transportation, and wildlife agencies.
- An analysis should be conducted of the agencies' (state and county) awareness level of the functionality of the CEMP and its components, as well as the overall functions of the ICS. Have enough agencies been included? Are there enough training opportunities for agency employees? Do the involved agencies have a well-established representation of their SOPs within the annexes of the CEMP?
- A training program should be established that:
  - Requires ICS training for all agencies involved in the CEMP – state and county level. The training should include enough people from various agencies to ensure a widespread understanding of the ICS and various agencies' roles.
  - Establishes programs at the county level to bridge the gap between the legal system and agricultural issues in a biosecurity event.

# Section 3 – Reflections and Project Barriers

The assessment of interagency communication began with an attempt to consider the relationships that should exist across platforms for a most-effective response to a high-magnitude disaster. Therefore, the creation of a situational disaster requiring agencies to approach the problem from opposite directions was necessary. Through examination of possible required resources, a list of potential participants was created. However, as was expected, it wasn't until the roundtable discussion took place that missing entities were identified. In hindsight, valuable information from individuals at the local and federal levels was lacking.

Once information was collected and organized from all participants, it became evident that the problem may not entirely exist with interagency communications but, rather, with the total understanding of the ICS. Therefore, a stronger emphasis was placed on training rather than communication during the development of possible solutions.

If this project were repeated, the focal point in its creation would move from the quality of communication taking place between agencies during a disaster to the comprehensive training provided within agencies on how the ICS needs to function to be successful. If all involved individuals and their respective agencies are fully aware of how their role will develop in a disaster, then necessary communication will begin to improve. Once that is established, areas still lacking in interagency communication should be addressed.

# Section 4 – Critical Research Needs

This study shows that more could be known about how key agencies will react to a massive animal carcass disposal situation. While facilitation of this process will help agencies discuss their respective issues, some issues will not be addressed by agencies due to prioritization and current workloads. In other words, many agency professionals will not feel the need to put a high priority on animal carcass disposal issues. They will not be inclined to dedicate staff time to a theoretical issue when they have enough real issues to deal with at the present.

Research into (and summarization of) the laws, regulations, guidelines, and SOPs of key state agencies involved in responding to catastrophic carcass disposal events is needed.

In conjunction with the Carcass Disposal Working Group project, within the state of Indiana a roundtable discussion was organized to provide an opportunity for representatives from state agencies involved in responding to a foreign animal disease outbreak to come together to discuss the expected roles and responsibilities of each agency during a hypothetical disaster. Results of this roundtable discussion demonstrated that (1) more could be known about how critically involved agencies will react to a massive animal carcass disposal situation, and (2) in an environment of short-staffing and high workloads, agency personnel will likely not place a high priority on planning for theoretical animal carcass disposal issues.

Therefore, to facilitate planning efforts and provide structure for interagency discussions and exercises, research into (and summarization of) the actual laws, regulations, guidelines, and standard operating procedures of key agencies is warranted on a state-by-state basis.

This research is critical to the development of comprehensive plans for state and county governments to more easily identify their roles. These could be used in training programs for state and local agencies to develop pertinent SOPs and MOAs.

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# Appendices

## Appendix A – Indiana Biosecurity & Public Health Roundtable, Situational Setup

### What:

A breakout of Dead Animal Disease (DAD) – this is an unknown disease. At two weeks into the disaster, affected animals include cows, pigs, and chickens. Symptoms include internal bleeding and massive respiratory problems. The incubation period appears to be five to seven days with death occurring three days later. The spread appears to be rapid. Confidence is high that it does not affect humans, but such a concern is not 100 percent ruled out.

### Where:

A total of seven farms within a 25-mile radius of the Indianapolis Airport are reporting the disease.

### When:

The first reports are from a dairy farm (A) and poultry farm (B) on July 16. The other five farms report symptoms four days later on July 20.

### Details:

Farm A: 1,000 dairy cows

Farm B: 16,000 chickens

Farm C: 12,000 swine

Farm D: 500 beef cattle

Farm E: 5,000 swine

Farm F: 1,500 dairy cows

Farm G: 1,000 beef cattle

Total Number of Animals: 37,000

By July 17, an unknown disease, which is being referred to as DAD, is identified within the confines of farms A and B; 675 cows and 7,350 chickens are showing symptoms for the mysterious disease. Two days before the confirmation (July 15) a feed truck had made rounds to these two farms, as well as ten others. By July 20, five of the ten are reporting symptoms. On the same day, ten percent of the infected animals on farms A and B have died. On July 21, the truck is quarantined.

On July 18, concerned neighbors near farms A and B report to the Dawson County Sheriff that a white sedan was seen near the farms' premises. Both accounts verify that the sedan had rental plates and was carrying three or four people. To date, there is no evidence of this vehicle, or others, being on all seven farms.

All farms ship to markets:

- Farms A (milk daily), D (2x/yr), E (1x/week), G (2x/yr) – state shipping
- Farms C (1x/week), F (milk daily) – interstate shipping
- Farm B (eggs daily) – international shipping

### Those affected:

1. The infected farms are experiencing catastrophic losses. At minimum, 37,000 animals will have to be dealt with for mass carcass disposal.
2. Surrounding land and uninfected farms that are located in the established quarantined perimeter (a three-mile radius) around each infected farm. Such quarantine would institute a complete halt to all business which concerns movement outside of the property.
3. People/public could be affected in four ways:
    a. Those in quarantined zone could be deemed immobile for an enforced amount of time.
    b. Massive carcass disposal issue = public health issue.
    c. Public perception and concerns – a poor understanding of DAD and a fear of the safety of associated animal products bought from grocery store shelves or supplied to school lunch programs.

i. One problem is that DAD is so closely timed with SARS. Some feel strongly it could affect humans. Therefore, the public fear level is increased.

d. Possibility still exists that disease is zoonotic.

4. The national dairy, pork, poultry, and beef markets experience a devastating drop in prices and trade capabilities.

5. Already, scores of national reporters are camped out on the west side of Indianapolis and are demanding information.

### Questions/assumptions/scenario changes:

1. Can all shipped meat, milk, eggs, and live animals from infected farms be tracked?

2. Characteristics of this disease: What is the rate of spread? How long is the incubation period? What are the potential vectors? Can it be spread by contact, air, or other animals?

3. What are the appropriate biosecurity procedures that the animal care specialists must take to safeguard themselves and unaffected animals?

4. Will other species, such as wildlife, have to be examined or destroyed because of this outbreak? If so, how will this hinder personnel and the logistics of controlling the situation?

5. Possible assumption: DAD is a genetically modified organism.

6. Possible assumption: It is suggested that the disease was spread into confinement buildings through an aerosol sprayed into the air intake. This makes the disease deadly at those operations. But, because of modern confinement and current biosecurity habits, the disease does not seem to be spreading as fast as it could.

7. Scenario change: The county sheriff, in cooperation with a local citizen, finds a suspect container with trace amounts of an unknown substance that is currently being investigated. This container was found in a ditch just outside the city limits of the Dawson County Seat.

## Appendix B – Indiana Biosecurity & Public Health Roundtable, Questions Posed to Participants

The accompanying Dead Animal Disease (DAD) scenario explains a hypothetical outbreak of an unidentified disease that is suspected to be genetically altered. Please refer to this scenario as you answer the following questions (*if your answers require more space, please use the back of this page or attach additional pages, if necessary*):

1. The state of Indiana has a Comprehensive Emergency Management Plan. Is your agency represented in that plan? ___ Yes ___ No ___ Don't know.

2. This plan calls for standard operation procedures (SOPs) with guides and plans to support it. In reference to the DAD scenario, does your agency have SOPs that apply? ___ Yes ___ No ___ Don't know.

3. Considering those SOPs and the DAD scenario, at two weeks into the disaster:

   a. What protocols would have been completed by your agency?

   b. What continuing steps would you expect your agency to take?

4. For the DAD scenario, what Memorandums of Agreement (MOAs) or Memorandums of Understanding (MOUs) do you think are already in place to aid in interactions with other agencies?

5. For the DAD scenario, what MOAs or MOUs do you think need to be in place in the future to aid in interactions with other agencies?

6. What problems do you feel will surface if a disaster of this nature and magnitude appear in Indiana?

# Appendix C – Indiana Biosecurity & Public Health Roundtable, Participants

| Organization | Participant |
|---|---|
| Animal Disease Diagnostic Lab | Leon Thacker, Director |
| Counter-Terrorism and Security Council | Clifford Ong, Director |
| Farm Service Agency | Steve Brown, Program Specialist |
| Indiana Board of Animal Health | Marianne Ashe, DVM, Director of Emergency Planning<br>Denise Derrer, Public Information Director |
| Indiana Dept. of Environmental Mgmt. | Cheryl Reed, Asst. Commissioner for Public Policy & Planning<br>Dan Hottle<br>Max Michael |
| Indiana Dept. of Natural Resources | Russ Grunden |
| Indiana State Chemist Office | Allen Hanks, State Chemist |
| Indiana State Department of Health | James Howell, DVM, MPH, Veterinary Epidemiologist<br>Kathy Weaver, Director, Office of Policy and GRC Coordinator, BT Education and Training |
| Ofc. of the Commissioner of Ag. | DeeDee Sigler, Communications Director |
| Purdue University Extension Service | Steve Cain, Disaster Communication Specialist |
| State Emergency Management Agency | Bob Demuth, Emergency Operations Center |
| Indiana Public Health Association | Jerry King, Executive Director |
| US Attorney General's Office | Jack Osborne, Joint Chairs & Task Force |
| County-Level Board of Health | Linda Chezem, JD, Chair |

# Appendix D – Indiana Biosecurity & Public Health Roundtable, Agenda

| Agenda | |
|---|---|
| Date | July 30, 2003 |
| Location | Hamilton County Extension Office, Noblesville, Indiana |
| Schedule | |
| 8:45 to 9:00 | Refreshments |
| 9:00 to 9:20 | Introductory comments and introduction |
| 9:20 to 9:30 | Review scenario |
| 9:30 to 10:00 | Review responses from pre-questionnaire |
| 10:00 to 10:15 | Break |
| 10:15 to 12:00 | Areas of Cooperation<br>Future Actions |
| 12:00 noon | Adjourn |