

## **Animal Feed Response Plan**

**November 2010**

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## **1.0 Introduction**

Feed incidents, whether accidental or intentional, have the potential to cause adverse health effects for large segments of the animal population. Mitigating the consequences of such emergencies will require the capability to respond to and recover from chemical, biological or physical contaminants and other hazards that may affect the safety of food and agricultural products. The Colorado Department of Agriculture (CDA) *Animal Feed Response Plan* describes the response actions that will be implemented by the CDA in collaboration with the Food and Drug Administration (FDA), U.S. Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS) and Animal Plant Health and Inspection Service (APHIS), local emergency management personnel, local and state law enforcement, and the feed industry partners to swiftly investigate and control an animal feed incident.

The Colorado Revised Statutes (CRS) defines animal feed as “any substance that is intended for use as food for animals other than humans (CRS 35-60-102). In general, animal feed products fall into one of the following categories:

- Ingredients, derived from the processing of grains, oilseeds, meat, vegetable and fish products
- Roughages, such as hay and grasses
- Compound feeds, which combine ingredient feeds, and
- Companion animal food

For purposes of this plan, the term “feed” refers to both food for food-producing animals and companion animals.

### **1.1 Purpose**

The *CDA Animal Feed Response Plan* is intended to serve as an over-arching response plan for any feed incident in which there is a need for CDA resources. This plan describes policies and procedures that will minimize the impact of an unintentional or deliberate incident related to the state's feed supply.

As a CDA emergency response document, this plan can be activated as a stand-alone document or implemented in tandem with other CDA response plans. Depending on the incident at hand, it will be important to develop the appropriate Incident Command Structure (ICS) so that roles and responsibilities for each activated plan are considered and fully addressed.

### **1.2 Scope of Authority**

As described in CRS Colorado Feed Law 35-60-101 to 35-60-115, the Commissioner of Agriculture is responsible for the public's protection against the manufacture and sale of livestock feeds containing deleterious elements or ingredients which cannot be known or determined by the public. Such an incident could involve any of the following: feed

contamination, adulterated feed, mis-branding or mis-labeling a feed product. Any actions implemented by the CDA in response to a feed incident will be in accordance with the authority granted to the Commissioner of Agriculture in the Colorado Feed Law.

### **1.3 Situation**

Animal feed is an important element of the food chain that has a direct impact on animal health, food safety, and public health. Zoonotic diseases such as *Escherichia coli* (E.coli) and *Salmonella* can be transmitted via contaminated feed and cause infections in humans by ingesting contaminated food.

In addition to the impact on health and welfare of animals and people, a large-scale feed incident may have a direct impact on trade both nationally and internationally. As a significant component of the nation's agricultural economy, the US leads the world in feed production with the industry valued at over \$25 billion. Additionally, the US is the world's leading supplier of feed ingredients exporting over \$4 billion in animal feed products annually. Colorado ranks in the top third of US states in exporting feed. According to the USDA, Colorado exported over \$355 million in feed and feed related products in 2008.

An equally important component of the feed market is the pet food industry. In 2009, pet owners spent over \$10 billion on food for their pets, and are estimated to purchase over \$11 billion dollars of pet food in 2011<sup>2</sup>. The importance of feed safety was highlighted in 2007 when high levels of melamine were found in some brands of cat and dog food which led to the recall of 1154 pet food product types and caused the deaths of approximately 1,000 dogs and cats.

### **1.4 Assumptions**

- Response to an animal feed incident will begin at the local level.
- Incident management activities will be initiated and conducted using the principles contained in the National Incident Management System (NIMS).
- Threats to the food supply can come from natural sources, inadvertent acts, and deliberate acts. This plan may be used to respond to feed-borne emergencies, regardless of the cause.
- Federal Bureau of Investigation (FBI) will become the lead agency for the criminal investigation portion or a response, in the event that a feed incident or other food-related emergency is determined to be the result of a deliberate or criminal act.
- The FDA and the USDA's FSIS will support a state's response to a feed event.
- The Center for Disease Control and Prevention (CDC) may become involved and provide support for emergencies that are causing food-borne illness.
- An effective and coordinated response effort will be needed to restore the public's confidence in the food supply in the aftermath of a contamination

- Tracing may be difficult due to the lack of a uniform regulatory system that would insure the traceability of all products and commodities, regardless of the origin.
- Developments in the farm-to-table pathway have greatly increased the number of entry points for contamination.
- Depending on the causative substance of the contamination, contaminated foodstuffs may need to be considered and handled as hazardous waste.
- Suspected infected locations, machinery, distribution centers and transport vehicles may need to be cleaned and disinfected for contamination.

### **1.5 Plan Maintenance**

The Commissioner of Agriculture is responsible for the management and maintenance of this plan, under the jurisdiction of the Colorado Agricultural Commission. The CDA *Animal Feed Disease Response Plan* will be reviewed and updated as required but at least annually in September to incorporate updates to Homeland Security Presidential Directive (HSPD) 9 – *Defense of United States Agriculture and Food*, Emergency Support Function (ESF) 11– *Agriculture and Natural Resources* and legislative updates as well as lessons learned that are identified in the debriefing process and after action reports following an actual event or training exercise.

## **2.0 Concept of Operations**

The concept of operations provides the operational framework for activating this plan and how the CDA will classify the response. Additionally, this section provides an overview of the CDA's responder health and safety program and guidance on how the Department will interface with agencies, the feed industry, media and the public during an emergency response event.

### **2.1 Types of Animal Feed**

A large assortment of animal feed is available to livestock and pet owners. Additionally, a wide range of raw material is used to produce animal feed. Information on types of animal feed and a list of ingredients used to produce feed is located in Appendix B. Animal feed in Colorado is generally produced by one of the following methods:

- Commercial plants producing feed for sale (approximately 20 feed mills and 100 pet manufactures are located in Colorado); or,
- Integrated operations that produce feedstuffs for their own animals (mostly associated with poultry, cattle and swine concentrated animal feeding operations).

### **2.2 Adulterated Feed**

Animal feed that does not meet federal or state standards is referred to as adulterated feed. As define by the Colorado Feed Law (CRS 35-60-101 to 35-60-115), feed in Colorado is considered adulterated if it meets any of the following criteria:

1. it bears or contains any poisonous or deleterious substance which may render it injurious to health;
2. it bears or contains any added poisonous or added deleterious substance (other than a pesticide residue, food additive, color additive or new animal drug, which are covered by separate provisions) that is unsafe;
3. its container is composed, in whole or in part, of any poisonous or deleterious substance which may render the contents injurious to health;
4. it bears or contains an unsafe food additive, color additive, new animal drug and/or pesticide residue;
5. it contains in whole or in part, of any filthy, putrid, or decomposed substance or is otherwise unfit for food;
6. it is manufactured, packaged, or held under unsanitary conditions that may contaminate it with filth or make it harmful to health;
7. it is in whole or part, the product of a disease animal or of animal that has died by a method other than slaughter and such method is unsafe within the meaning of The Federal Food, Drug, and Cosmetic Act (FFDCA);
8. it has been intentionally subjected to radiation, unless the use of the radiation was in conformity with the FFDCA;
9. it contains any germinative noxious weed seeds in amounts exceeding the limits established by the Commissioner of Agriculture; or,
10. an important constituent of the feed falls below or differs from that which is represented on the feed label.

### **2.3 Hazards Associated with Feed**

Adulterated feed may be a result of different types of feed contaminants or hazards. Such hazards can be introduced in source materials or through contamination of products during handling, storage and transportation. The World Organization for Animal Health, once known as the Office of International Epizootics (OIE) categorizes feed hazards into three classifications: biological, chemical and physical (see Appendix C for Animal Feed Safety System (ASFF Draft Feed Hazardous Contaminants List).

#### **Biological Hazards**

Biological hazards that may occur in feed and feed ingredients include agents such as bacteria, viruses, prions, fungi and parasites. Biological hazards considered significant due to their potential impact on animal health and safety, public health or trade are zoonotic diseases such as Salmonella, E. coli and bovine spongiform encephalopathy (BSE).

#### **Chemical Hazards**

Chemical hazards that may occur in feed and feed ingredients include naturally occurring chemicals such as mycotoxins. Mycotoxins are chemicals produced by fungi under certain conditions usually occurring in the Spring and Fall and occur in a wide variety of substances

including animal feed. Mycotoxins can cause human health problems and economic losses in livestock.

Other chemical hazards include, industrial and environmental contaminants (such as dioxins and Polychlorinated Biphenyls (PCBs), residues of veterinary drugs and pesticides and radionuclides. Residues of chemical agents can leave undesirable or potentially harmful residues in animal feeds. Contamination of feed can occur during crop production, industrial processes which produce animal feed by-products and, feed storage.

### **Physical Hazards**

Physical hazards are objects which are not a part of animal feed and never meant to be animal feed, but somehow get into the feed. Examples are pieces of glass or metal, toothpicks, cigarette butts, pebbles, and plastic. Physical hazards are not likely to pose a direct threat to consumer safety, but can be an animal welfare or farm safety hazard.

### **Personal Health and Safety**

Additional hazards associated with feed can have a direct human impact. Hazards such as spores from moldy feed can affect personal safety and health. These spores can pose serious threats to personal health resulting in farmers' lung. High dust environments (e.g. pig units, farm feed mills) pose similar risks. Additionally, direct contact with contaminated animal feed can lead to exposure to other harmful organisms including *Leptospira* that is transmitted via rat urine.

Silo fires are hazards associated with feed that manufactures and producers may face. Such fires are often started by dust or other dry materials ignited by electrical problems or overheated equipment. Potentially more serious silo fires result from spontaneous ignition within the stored silage due to air leaks in the silo.

## **2.4 Feed Response Team**

Depending on the complexity and scale of the incident, The Director of I&CS may activate a Feed Response Team to lead the investigation for a feed incident and implement control measures. The response team consists of people who each contribute different knowledge and skills to the incident. The overall goal of the team is to determine the possible safety risks of a feed event, identify the cause(s) of the incident, and contain the problem. When a potential hazardous feed situation occurs, the Director of I&CS will ensure members of the feed response team are informed. Core response team members include the following positions:

### **Team Leader-- Director of I&CS or designee**

Responsible for setting and enforcing priorities, coordinates all activities associated with the investigation, serves as point-of-contact for the team.



**Case Investigator (Feed Program Administrator)**

Identifies cases, interviews each confirmed, probable, and suspected case and obtains information on all contacts. Provides daily contact-status reports to the Team Leader including new cases.

**Environmental Investigator (Feed Inspectors)**

Investigates the sites, collects environmental and feed samples, coordinates feed sampling, arranges for testing samples, interviews farm workers.

**Laboratory Investigator (Biochemistry Laboratory Section Chief)**

Directs analyses of feed samples, interprets test results, and suggests follow-up testing, reports results, coordinates testing among laboratories, advises other team members about laboratory testing, including collection, handling, storage and transport of specimens.

**Animal Health Investigator (Deputy State Veterinarian, VMO)**

Investigates animal health issues associated with suspected feed incident.

Depending on the size and scope of the investigation, the size of the team varies based on the needs of the incident. Once a decision is made to activate the *CDA Animal Feed Response Plan* and to implement an Incident Command System (ICS), the team members will assume lead roles within the ICS framework (see Appendix D for an ICS Organizational Structure for a Hazardous Feed Response.)

**2.5 Triggers to Activate an Emergency Response**

The need to activate this plan will be based on the case, complexity, scale, risk and occurrence of any or all of the following:

1. The CDA receives a complaint from a consumer, veterinarian, or other interested party, involving either animal feed or human food chain, indicating the need for a response in order to mitigate and control the risk.
2. The CDA becomes aware of a possible acute exposure of either animal feed or of food producing animals to a toxin or other harmful substance.
3. The CDA becomes aware of significant unexplained mortality or debilitation of any food producing animal species or of companion animals, depending on scale, containment, and risk to human health and possible trace-back to human food products.
4. CDA receives a request by an agency or departmental division for a team response.

**2.6 Incident Command System & Response Levels**

Since incidents will vary in size and scope, the level of activation will depend on the nature of the event. Most animal feed incidents will not require local, state, or federal emergency response

functions. Many incidents are handled routinely by the feed industry who has invested time and resources in developing plans to deal with their own incidents and situations.

In light of a feed event where CDA resources are used to meet the needs an emergency event, the CDA will manage the incident using NIMS. NIMS provides standardized incident management processes, protocols and procedures for all emergency responders. CDA will also manage each incident using ICS, as mandated by NIMS. Designed to be a flexible all-hazard incident management tool, ICS allows decision makers to fill ICS positions to meet the complexities and demands of the incident. For example, a localized event may only require the incident commander position to be filled; where as a regional or more wide-spread incident may require all positions in an ICS incident organization chart to be filled. CDA will also follow NIMS incident typing and will respond to an animal health emergency using the following activation levels. NIMS incident typing will assist decision makers in determining resources required for specific incidents.

#### **Level 5**

A level 5 response refers to a situation with little complexity that could be managed with one or two single resources. This level of response generally would be of a short duration and likely would consist of one 12-hour operational period or less.

#### **Level 4**

A level 4 response is normally limited to one 12-hour operational period and requires minor state resource input to manage the incident. This level of response generally does not require an incident action plan (IAP) and can be managed using the resources and personnel of the CDA I&CS Division. Level 4 activities will include those identified for Level 5 and also the following additions:

- FDA is notified of situation.
- Review of the *Animal Feed Response Plan* relative to a potential response to the disease in question.
- Notification of feed industry representative(s) of the feed incident and clinical symptoms.
- Notification of animal owners, private practice veterinarians or others of specific clinical symptoms of the disease(s) toxin, other agent in question.

#### **Level 3**

A level 3 response reflects the elevated surveillance, preparation and response that may be initiated by the state if there is a confirmed diagnosis of a hazardous feed event in Colorado. A level 3 response may trigger activation of the Colorado Emergency Operations Center (EOC) and deployment of the Eastern Colorado Incident Management Team (ECIMT).

The ECIMT is a Type 3 incident management team (IMT) that will be activated to support incident management for incidents that exceed departmental capability to manage the incident effectively. Type 3 IMTs are deployed as a team of 10-20 trained personnel to manage major and/or complex incidents requiring a significant number of local, regional, and state resources. A level 3 response may evolve into multiple operational periods that require a written IAP for each operational period. Level 3 activities will include those activities identified for all preceding levels and also the following:

- Import/export of affected, potentially affected feed states will be suspended, pending control and eradication of the disease.
- Relevant state resources will be inventoried and contract mechanisms supporting the logistics portion of a potential response will be reviewed and made ready for use.
- Public relations material will be reviewed, made current, and vetted with key collaborators in preparation for release. CDA and FDA will be consulted for their message map on the feed hazard, its implications for public health, animal health, and the livestock industry.

## **Level 2**

A level 2 response reflects a full-scale multi-state response that may require regional and / or national resources to effectively manage the incident. Level 2 activation is in response to a large, complex incident that will involve multiple operational periods. A written IAP is required for each operational period. A Rocky Mountain Type II or equivalent IMT may be deployed to support management of the incident. A Type 2 IMT is deployed as a team of 20-35 individuals to manage incidents of regional significance and other incidents requiring a large number of local, regional, state, and national resources.

## **Level 1**

A level 1 response will be declared for the most complex incidents that require national resources to safely and effectively manage the incident. A level 1 response will be managed by a Type 1 IMT. A Type 1 IMT is deployed as a team of 35-50 to manage large national incidents and other incidents requiring a large number of local, regional, state and federal resources over multiple operational periods.

## **2.7 Incident Complexity Analysis**

The exact moment when an incident shifts from one level of complexity to the next is often a matter of perception. The Commissioner or designee must assess the complexity of an incident and authorize a level of response to meet the needs of the event. An Incident Complexity Analysis may be completed to assist in determining the appropriate level of response. The assessment tool consists of a series of questions regarding the incident and associated information that when answered will help determine the appropriate level of response and

resources required to meet the needs of an incident. An example of an Incident Complexity Analysis worksheet is located in Appendix E.

## **2.8 Responder Health and Safety Program (PPE)**

A fundamental responsibility of CDA is ensuring the safety of Department employees involved in responding to a feed incident. To meet this obligation, the CDA Homeland Security Director developed the Responder Health and Safety Program. The CDA Responder Health and Safety Program is composed of three components: (1) Personal Protective Equipment GUIDELINES for CDA employees – General Guidance Document; (2) CDA –Respiratory Protection Program and (3) Medical Monitoring and Rehabilitation. Combined, these documents / programs provide a means to assess employee fitness for emergency work, provide for personal health protection via the use of protective equipment and decontamination procedures and monitor vital signs and provide support to assure employees maintain fitness levels needed to conduct assigned activities.

### ***Personal Protective Equipment***

This General Guidance Document provides a plan to be followed to assure a safe working environment while allowing flexibility to meet varying needs that might be expected in an animal health emergency environment. The guidance is just that guidance that incident commanders, safety officers, operations section chiefs, veterinarians, team or task force leaders or the like can utilize in assessing and deciding upon equipment and procedures they will utilize when conducting their assigned missions. PPE Guidance for CDA employees for both a non-zoonotic and a zoonotic animal disease incident are summarized in Appendix F.

Producers or the general public need to realize rather high levels of protection may be utilized initially as the agent at that point may be unknown. Once the agent is identified, levels of protection can be adjusted, generally decreased, to fit specific challenges an agent might pose. It is likely the latter level will be quite similar to employer placed biosecurity programs.

Of special note is the fact Colorado is a “non-Occupational Safety and Health Administration (OSHA)” state. This means state employees are not subject to the same regulations as are production facilities and their respective private sector employees. The CDA program has essentially been placed to close this gap. Even so, producers remain responsible to follow appropriate OSHA programs related to their facilities. State employees can not provide any equipment or certain training to private employees though they may recommend certain levels of PPE be utilized for different operational activities.

### ***Respiratory Protection Program***

Whereas disease agents and toxins often utilize the respiratory system as a portal of entry and further where the use of chemicals in cleaning and disinfection or those that are inherently present on livestock operations may pose health risks, the department operates a respiratory protection program. Individuals who may be deployed to an incident have completed a medical

questionnaire that has been reviewed and approved by a medical doctor familiar with such programs. These individuals have been trained and fit tested to utilize specific respiratory equipment. Production facilities may or may not have similar programs in place. It is anticipated if they do not, employees could still work in less hazardous areas or accommodations could be made to have employees trained and tested for such activity.

### ***Medical Monitoring and Rehabilitation***

Production workers generally have scheduled breaks to eat or get something to drink. These may need to be extended and rehydration beverages or food provided dependent upon work schedules. Medical monitoring of production employees might possibly be arranged for via local public health or emergency medical service departments.

## **2.9 Communication Plan**

External communication during a feed event will be the responsibility of the Commissioner of Agriculture or his designee and the CDA Director of Communications. The Commissioner of Agriculture or his designee with assistance from the CDA Liaison Officer will direct and maintain communication with federal, state, and local government agencies and partners that have a statutory responsibility in emergency response (see Appendix G for the Regulatory Network's contact information). Additionally, the CDA Communication Director will communicate and collaborate with feed industry representatives and others throughout the incident.

Correspondence and communication with the media and public regarding the incident will be directed and managed by the CDA Director of Communications. The CDA Director of Communications or assigned designate will assume the ICS role of Public Information Officer (PIO) upon activation of this plan. Should a Type III or higher ranked IMT assume command, the CDA Director of Communications will become a PIO team member under direction of the Incident Commander (IC). All information gathered and prepared will be vetted by affected parties and approved by the IC and Commissioner of Agriculture or designee prior to release to the media or public.

## **3.0 Feed Incident Response**

This section describes the processes and protocols that may be utilized by the CDA in response to a feed incident. These processes and protocols are designed to enable execution of the responsibilities of the CDA and to integrate federal, state, local and industry efforts into an effective and coordinated approach to a hazardous feed situation.

It is important to note that response actions are rarely undertaken sequentially or linearly. Some activities can take place concurrently with other activities, while others must wait for the results of earlier activities. Furthermore, some activities, such as communication or implementation of control measures, occur repeatedly throughout a response.

## **4.0 Feed Hazard Detection**

Feed events are typically detected through two general methods, pathogen-specific surveillance and/or notification compliant systems.

### **4.1 Pathogen-Specific Surveillance**

The CDA Biochemistry Laboratory provides analytical support to the I&CS by performing analysis on animal feeds. Animal feed samples gathered by I&CS Inspectors across the state from feed manufactures, suppliers and feedlots are tested for compliance with the Colorado Feed Law. Types of analysis on the samples vary for each animal species. Additionally, the I&CS Biochemistry Laboratory will test animal feed samples in response to a valid animal feed complaint. In some cases the CDA Biochemistry Laboratory may not have the necessary capacity or expertise to perform a test(s) on a sample. In this situation, the Biochemistry Laboratory will contact and coordinate sending the samples to a laboratory which has the required expertise and capacity.

### **4.2 Notification / Complaint Systems**

Notification/complaint systems are designed to receive and respond to reports from the community about possible feed hazards. Feed complaints from consumers lead to the identification of most localized feed incidents and are the only method for detecting incidents caused by agents for which there is no pathogen-specific surveillance.

When the I&CS receives notification from a veterinarian, pet owner, producers or others about a feed complaint, information will be collected to determine the need to investigate the incident. In most cases, certain criteria must be met in order for an investigation to take place. I&CS policies and procedures in responding to a complaint are located in Appendix H.

## **5.0 Feed Incident Confirmation**

Upon discovery of a possible hazardous feed incident, the Feed Administrator will initiate an investigation to confirm or rule out a hazardous feed event. Information obtained from the investigation will be reported to the Director of I&CS or designee.

### **5.1 I&CS Biochemistry Laboratory**

Laboratory analysis of a feed sample may assist in confirming a hazardous feed event. Such analysis may also help identify if the feed is contaminated, adulterated, mis-branded or mis-labeled. The I&CS Biochemistry Laboratory provides analytical support to the CDA's Divisions of I&CS, Plant Industry and Conservation Services. During a feed incident the I&CS Biochemistry Laboratory will:

- Provide analytical testing of feed samples for pathogens, toxins and chemicals
- Maintain capability for conducting analysis using rapid, precise and accurate methods
- Conduct analytical testing related to product trace-backs.
- Test samples for evidence of contamination by zoonotic or epizootic organisms.

- Coordinate information and data sharing with animal health laboratory networks.
- Provide timely reports of laboratory results
- Maintain chain-of-custody where and when needed and,
- Provide sample collection tools, equipment and guidance to field investigators.

## **5.2 Sample Collection Procedures**

Samples collected by field staff will be submitted immediately to the CDA I&CS Biochemistry Laboratory (transported by field staff or other team members) for analysis. When collecting feed samples, CDA inspectors and sampling personnel will follow protocols detailed in the Work Instruction- Chain of Custody Record Forms (see Appendix I). Results of the lab analysis will be reported to the IC&S Director. The IC&S Director will make lab results available to all applicable response team members as soon as possible. Results will be discussed and further actions will be determined.

## **6.0 Notification & Plan Activation**

Upon receiving the initial complaint or notification from the lab on a contaminated sample, the severity of the situation is assessed by the Division Director of I&CS or his designee. If the need to initiate an emergency response cannot accurately be determined after the initial complaint assessment, further investigation may be necessary before initiating a response.

### **6.1 Feed Response Team Notification**

Feed response team members may be notified of an incident and directed to be ready, in case the incident is found to warrant an emergency response. A “Stand-by” status may be initiated until more information is collected. If an emergency response is justified, the “Stand-by” status may be upgraded to “Active”. Conversely, an “Active Emergency Response may be “Inactivated” if warranted. The team leader will update team members with new information as it becomes available, which will include periodic status reports, as well as final disposition and follow-up information, once either the case has been completed and closed, or the case is turned over to another agency. Status level overview is as follows:

#### **Stand-By**

Laboratory testing reveals a contaminate and/or complaint has been received by the Division. However, not enough information is known to make a determination on whether or not to initiate an emergency response.

#### **Active Emergency Response**

Incident progresses, situation changes, or new information is received which demonstrates a need to initiate an emergency response. Activation of a response allows for immediate action to a situation that worsens to the point of necessitating an emergency response.

**Inactive Emergency Response** Incident regresses, situation changes, or new information is received which demonstrates a need to terminate an emergency response. Deactivation of an emergency response allows closure when: The threat to human/animal health has reduced to the point that an immediate response is not necessary or would not be beneficial, or when/if the case is handed off to another agency. Example: Case is downgraded to a “feed complaint” and due to information obtained during an investigation.

## **6.2 Response Plan Activation Sequence**

Upon a recommendation from the I&CS Director, the activation of an emergency plan is at the discretion of the Commissioner. Once the I&CS laboratory confirms a feed incident that is associated with circumstances requiring an effective and immediate response, the Commissioner or his designee will active the *Feed Response Plan*.

## **6.3 Department Notification**

The Commissioner or his designee will immediately contact the Deputy Commissioner and the CDA Homeland Security Director and relay all known information on the feed event. The I&CS Director should be prepared to make recommendations with respect to any gubernatorial declarations and or activation of the state emergency operations center (SEOC). Specifically, the I&CS Director will relay the following information:

- Name and contact information of the verifying laboratory official reporting the confirmatory test.
- If applicable, name and location of the affected premises including Global Positioning System (GPS) and Colorado Livestock Security System (CLSS) Premises Identification Number (PIN if available).
- If applicable, name and location of feed manufacturer responsible for manufacturing adulterated feed.

## **6.4 External Partner Agency Notification**

Initiating contact with partner agencies will occur when the incident is identified as having the potential to be or to become a multi-jurisdictional feed emergency. Incidents requiring notification to external partners may include:

- Illness is spread over more than one geographic jurisdiction
- An unusual or particularity pathogenic organism is suspected / involved
- A large number of unexplained illnesses are involved and,
- Intentional contamination is suspected



## 7.0 Investigation

Upon the detection of and / or a reported feed incident, the primary goal of the Feed Response Team will be notified to identify the source of the feed event to determine the most effect control measures. A prompt, complete and accurate investigation is critical to restoring confidence in the food supply and in identifying the circumstances that led to the feed emergency.

Upon receiving an assignment, the case becomes the Feed Response Team’s top priority and takes precedence over other assignments. Once notified, a same-day field response is expected. If an incident is reported to the Department on a weekend day, a same-day response is still expected.

### 7.1 Trace-back & Trace-forward Activities

In certain emergencies, the CDA must determine the distribution of the implicated lot of feed or feed product. To respond quickly and effectively to an animal feed emergency, I&CS staff may initiate a trace-back or trace-forward investigation to verify the distribution of the implicated feed product and to locate other potentially affected animals.

Thus, an important component of a feed incident investigation is to establish trace-backs and trace-forwards from affected premises to determine both the contamination source and the risk of other animals exposure to the adulterated feed. Track-backs are conducted to assist in determining the source and distribution of the implicated product associated with a feed incident and to identify potential points where contamination could have occurred. Trace-backs also assist in providing a foundation for stop distribution orders of the contaminated feed remaining in the marketplace. Trace-forward procedures assist in identifying where the contaminated product was sent.

### 7.2 Data Sets Collected

Table 1 lists information and data collected during a feed investigation. Inspectors will collect a variety of information from different sources as indicated below.

**Table 1: Data & Information Collected in a Feed Investigation**

<b>Consumer</b>	<b>Manufacturer</b>	<b>Supplier/Retailer</b>
Where the Feed was Purchased	Locations of Production Facilities	Names of customers
When the Feed was Purchased	Date Produced	Dates / Times of Purchases
Quantity/Size/Weight	Date Shipped	
Manufacturer		
Lot or Batch Number		
Sell by Date or Code		
Use by date or code		

## **8.0 Control**

When a feed adulterant/contaminant is confirmed through laboratory analysis and through investigation procedures, the Commissioner of Agriculture will implement a series of response actions to control the movement of the adulterated feed and minimize the impact of a feed event. Though actions will vary based on the incident, the following section presents a series of possible control activities that may be utilized by the CDA.

### **8.1 Rapid Notification informing the Public**

All communication with the public during an animal feed emergency will be managed by the CDA Communications Director. Public communications activities and content in the event of a feed incident will be guided by several key objectives:

- to engage in timely and appropriate communications activities coordinated among all partners
- to reach the affected public and those at greater risk
- to ensure the communication response reflects general risk communication, and emergency and crisis communications and,
- to develop consistent and complementary communications products in a timely manner

### **8.2 Stop Distribution Order / Recall (CRS- 35-60-111)**

When there is reasonable cause to believe any lot of feed is in violation of any of the provisions of the Colorado Feed Law, the Commissioner of the Colorado Department of Agriculture may issue and enforce a “Stop Distribution, Manufacture, or use of Feed” order for a specific lot of feed as authorized by CRS 35-60-111. The “Stop Distribution, Manufacture, or use of Feed” order warns any distributor, manufacturer, or feeder of the lot of feed not to distribute, use as feed, or dispose of such feed in any manner until written permission is given by the Commissioner of Agriculture or the court.

### **8.3 Condemnation of Feed**

Any lot of feed not in compliance with the Colorado Feed Law may be subject to seizure on complaint of the Commissioner of Agriculture to a court of competent jurisdiction in the district or county where the feed is located. As stated in CRS 35-60-111, in the event the court finds the feed to be in noncompliance with the Colorado Feed Law, the court will offer the distributor or other claimant the opportunity to ask the court to release the feed so they can bring it into compliance with the Colorado Feed Law. If the feed is not brought in to compliance it will be disposed of in any manner consistent with the quality of the feed and Colorado law.

### **8.4 Disposal of Contaminated Feed**

For feed products regulated by the FDA, unless the product is seized, the feed manufacturer is responsible for the development of the product’s disposal plan. Many potential variables exist with each contamination incident, including the nature of the commodity, the different types of

threat agents that might be used as adulterants and their concentration. As such, disposal plans address the following questions:

- What is (are) the contaminate(s) or treat agent(s)?
- How is the contaminated food matrix categorized (e.g. hazardous waste, municipal waste, radiological waste, non-hazardous waste requiring special handling, or unknown).
- What is the quantity of the contaminated product for disposal
- What is the preferred disposal method?
- Is the selected disposal technique acceptable according to state, local, and federal regulations?
- Where is the final disposal facility?
- What are the logistics for moving the contaminated products from the site to the disposal facility?
- What transportation is required for the transfer of waste to the final disposal site?
- What are the required permits associated with the disposal process and how are they procured? Is assistance or oversight from state, local, and Federal government agencies required?
- Is there a health and safety protection plan for the workers who will be involved in the disposal process? If so, what is the plan?
- Who and what organizations will be involved in overseeing the disposal process?
- What are the acceptance criteria for the disposal process?

Because of this variation, effective disposal and decontamination response actions must be collaboratively developed by government and industry stakeholders on a case-by-case basis. In situations where the contaminated feed is seized by the State of Colorado, the IC&S Director will collaborate with the CDPHE Solid and Hazardous Waste Program to determine location and type of disposal method.

### **8.5 Disinfection and Cleaning of Contaminated Facility**

For FDA-regulated food products, as with disposal, decontamination plans are the responsibility of the feed manufacturer working with the appropriate state or local agency. Decontamination options should be made on a case-by-case basis. The most appropriate option will be based on a number of factors such as the type of contaminant and the type of contaminated surface. Appendix J lists possible decontamination options for inactivating feed hazards.

### **8.6 Terrorism & Intentional Tampering of Feed**

In the event that a feed incident investigation identifies or suspects intentional contamination of a food product, the Federal Bureau of Investigation (FBI) shall be immediately notified. The FBI is the agency responsible for investigating cases of bio-terrorism or agro-terrorism as part of the mission of a Joint Terrorism Task Force (JTTF). When food animals are the target of a terrorist

attack and evidence suggests feed may have been intentionally contaminated, the CDA will notify the Colorado Information Analysis Center (CIAC) who in turn will coordinate activities with the JTTF within the Denver Office of the FBI.

## **9.0 Business Continuity**

Allowing unaffected animal feed products to move during a feed event is essential to maintaining industry business continuity. Thus, movement of feed that is deemed unadulterated will take place along bio-secure corridors. Bio-secure corridors are transportation routes located outside of the affected area that will allow feed products to travel safely without risk of exposure to a potential feed contaminant or an animal disease. Identifying bio-secure corridors will be the responsibility of the CDA with assistance from the Colorado State Patrol and local law enforcement agencies if required.

## **10.0 Recovery**

The actions taken during the recovery period are focused on restoring the situation to normal or near normal as quickly as possible. Issues to consider are re-establishing feed manufacturing and distribution operations, repopulation of animal production facilities, financial considerations, re-establishing public trust and consumer confidence, and review of risk reduction measures. It is important to note that the recovery phase of an incident may last an extended period of time.

## **11.0 Roles and Responsibilities**

Sections 11.1 and 11.2 outline the roles and responsibilities of agencies and producers when responding to a feed incident.

### **11.1 Agencies Roles and Responsibilities**

Responding to a wide-scale feed incident will require the coordination of multiple agencies. A list of local, state, and federal agencies and their possible role in a feed contamination response are listed in Appendix K.

### **11.2 Industry's Role and Responsibilities**

Industry will play an important role both in preventing a feed incident and in response to such an event. Appendix L offers recommendations and actions to improve Continuity of Operations plans for the animal feed industry.

## **Appendices**

- A. Acronyms
- B. Feed Glossary
- C. AFSS Draft Feed Hazardous Contaminants List
- D. Incident Command Structure for a Hazardous Feed Response
- E. Incident Complexity Analysis
- F. Personal Protection Equipment Guidance
- G. Regulatory Communication Network
- H. CDA Feed Complaint Protocols
- I. CDA Chain of Custody Protocols
- J. Decontamination Guidance
- K. Federal, State, and Local Agencies Roles and Responsibilities
- L. Biosecurity Recommendations for Industry

## Appendix A Acronyms

AFSS	Animal Feed Safety System
APHIS	Animal and Plant Health Inspection Service
BSE	Bovine spongiform encephalopathy
CDA	Colorado Department of Agriculture
CDC	Center for Disease Control and Prevention
CIAC	Colorado Information Analysis Center
CLSS	Colorado Livestock Security System
CRS	Colorado Revised Statutes
ECIMT	Eastern Colorado Incident Management Team
EMAC	Emergency Management Assistance Compact
EOC	Emergency Operations Center
E.coli	Escherichia Coli
ESF	Emergency Support Function
FBI	Federal Bureau of Investigation
FDA	Food Drug and Administration
FFDCA	Federal Food, Drug and Cosmetics Act
FSIS	Food Safety Inspection Service
GPS	Global Positioning System
IAP	Incident Action Plan
HSPD	Homeland Security Presidential Directive
IC	Incident Commander
ICS	Incident Command System
I&CS	Inspection and Consumer Services
JTTF	Joint Terrorism Task Force
IMT	Incident Management Team
NIMS	National Incident Management System
OIE	Office of Internationale des Epizooties
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyls
PIN	Premises Identification Number
PIO	Public Information Officer
PPE	Personal Protection Equipment
ROSS	Resource Ordering and Status System
SEOC	State Emergency Operations Center
USDA	U.S. Department of Agriculture
VMO	Veterinary Medical Officer

## Appendix B Feed Glossary

Feeds are defined and classified in a variety of ways. Below are some common classifications and terms used to describe types of feeds.

### Complete Feeds Vs. Supplement Feeds Vs. Premixes

**Complete feeds** are nutritionally adequate and can be fed as the sole ration.

**Supplement feeds** are intended to be (1) fed undiluted as a supplement to other feeds; (2) offered free choice (i.e., animals are given unlimited access to it) with other parts of the ration separately available, or (3) further diluted and mixed to produce a complete feed.

**Premixes** are feeds that contain one or more concentrated products such as vitamins, mineral or drugs that are added to complete feeds.

### Compound /Formula Feeds

**Compound Feeds** are made up of two or more ingredients proportioned, mixed, and processed according to certain specifications. They are designed to provide the nutritional requirements of a certain type of livestock. There is a wide range of compound feeds available; the most important are for cattle, poultry, and pigs. The exact ingredients in a compound feed are interchangeable, to some extent, considering nutritional value of the major items used, cost of ingredients, and limits on toxin levels in certain ingredients. Computer software is generally used to formulate least-cost formulations.

**Formula Feeds** are another term for compound feeds; they may also be called **mixed feeds** or **prepared feeds**.

### Concentrates vs. Roughages

**Concentrates** are feeds low in fiber and high in total digestible nutrients; they include various grains and high-grade by-products such as wheat bran, oilcake, skim milk, etc. Concentrates are intended to be further diluted and mixed to produce a supplement or a complete feed.

**Roughages** are feeds such as hay, straw, and silage, which are high in fiber but low in total digestible nutrients. The most common type of roughage used in the U.S. is hay. Silages are derived from corn, legumes and grasses that have been anaerobically fermented.

### Energy vs. Protein Feeds

**Energy Feeds** include staple grain and vegetable crops of varying degrees of refinement, such as corn, wheat, barley, oats, sorghum, potatoes, wheat bran, wheat middlings, corncobs, rice bran, groats, and dried beet pulp. Corn is the most commonly used energy feed.

**Protein feeds** include oilseed meals and cakes (e.g. soybean meal, cottonseed meal), corn gluten meal, animal products such as meat and bone meal, and fishmeal.

### Medicated Feeds

**Medicated feeds** are any feeds that contain one or more substances considered to be an animal drug by the FDA. Antimicrobials included in a feed for growth promotion are included in the definition.

**Type A** medicated articles are regulated as drugs, and may or may contain a carrier (e.g.

## Appendix B Feed Glossary

corn gluten, rice hulls), or inactive ingredients. They are used to manufacture another Type A medicated article, or a Type B or Type C feed. They are a drug “premix” or concentrated source of the drug for mixing purposes.

**Type B** feeds are medicated concentrate or supplement feeds intended to be mixed with feed that is not medicated; they contain less drug than Type A but substantially more than Type C. Type B feeds are considered medicated feeds, and there are limits on how much drug they can contain.

**Type C** feeds are medicated feeds that are considered complete, ready for direct consumption by animals, and are regulated as feeds.

### **Organic Feed**

**Organic Feed** is strictly defined by regulation. Like any feed, organic feed must comply with the law regulating the use of feed, feed additives, and feed supplements. In addition, organic feed cannot contain any of the following components which may be found in **conventionally produced feed**.

- a) Animal drugs or hormones to promote growth
- b) Feed supplements or additives in amounts above those needed for adequate nutrition and health maintenance for the species at its specific stage of life
- c) Plastic pelts (for roughage)
- d) Urea or manure
- e) Mammalian or poultry slaughter by-products to be fed to mammals or poultry

### **Physical Forms of Feed**

**Mash** (meal) is ground.

**Pellets** have been agglomerated by compacting and forcing through die openings using a mechanical process.

**Biscuits** are shaped and baked dough.

**Blocks** have been compressed into a solid mass cohesive enough to hold its form and weighing over two pounds (generally 30 to 50 pounds). May also be called **bricks**.

**Cakes** are a mass resulting from the pressing of seeds, meat, or fish in order to remove oils, fats or other liquids.

**Diluents** are used to mix with and reduce the concentrate of nutrients and/or additives to make them more acceptable to animals, safer to use, and more capable of being mixed uniformly in a feed.

**Fines** have been passed through a screen.

**Flakes** have been rolled or cut into flat pieces with or without prior steam conditioning.

**Scratch** is whole, cracked, or coarsely cut grain.

**Uncleaned** feed contains foreign material.



## **Appendix B Feed Glossary**

**Wafers** are made from fibrous ingredients that have been agglomerated by compressing them into a form.

**Wet feed** contains liquid or has been soaked or moistened with water or other liquid.

### **Primary vs Secondary Feed**

**Primary feed** is feed mixed from individual ingredients such as feed grains, mill by-products, and ingredients of animal origin, sometimes with the additional of a premix at a rate of less than 100 pounds per ton of finished feed. Primary feed may be a complete feed, a supplement, a concentrate or other feed product for mixing with more ingredients. Generally primary feed does not include feed grains, wheat, rye, or by-product feeds (oilseed meals, animal protein, protein feeds, wheat mill feeds, alfalfa meal, etc.) that may have been purchased or ground and added as a feed supplement or feed concentrate.

**Secondary Feed** is made by combining supplements and other ingredients. It is often custom-mixed for clients, and generally used at a rate of 300 pounds or more per ton of finished feed, depending on the protein content.

### **Feed Ingredients**

A wide range a raw materials is allowed in the manufacture of animal feed and comes from the sources listed below.

#### **Plant Origin:**

- Grains (e.g., corn, barley, oats, wheat, sorghum)
- Oilseed meals and cakes (e.g., soy, cottonseed, canola, sunflower seed)
- Grain by-products (e.g., distillers grains, brewer's yeast, corn gluten meal)
- Fruit and fruit-by-products (e.g., dried citrus pulp, apple pulp)
- Molasses and Sugar
- Alfalfa products
- Miscellaneous products e.g., banana peels, coffee hulls, bean pods, acorns)

#### **Animal Origin**

- By-products of slaughter animals (e.g., meat by-products, animal liver, hydrolyzed poultry feather, ensiled paunch)
- By-products of animals that have died by slaughter of otherwise, including dead and disease animals, road kill, euthanized animals (e.g., animal by-product meal, meat meal tankage, blood meal, hydrolyzed hair)
- Marine by-products (e.g., fishmeal, fish oil, fish liver, and glandular meal)
- Dairy products (e.g., dried milk, various whey products, cheese rind)
- Animal waste (e.g. dried ruminant or swine waste dried poultry litter)

#### **Mixed Origin**

- Fats and oils (e.g., animal fat, tallow, poultry grease, vegetable fat or oil)

## **Appendix B Feed Glossary**

- Restaurant /food waste (e.g. edible food waste collected from restaurants, bakeries, cafeterias, etc, including plate waste, dried bakery waste)
- Contaminated/adulterated (human) food (e.g., food originally intended for humans that has become adulterated with rodent, roach, or bird excreta and that has been head-treated to destroy pathogenic organisms; may also include human food contaminated with pesticides, drugs, etc.).

### **Other (mineral, microbial, or synthetic origin)**

- Drugs (e.g. antimicrobials, organic arsenic compounds)
- Non-protein nitrogen (e.g. urea, anhydrous ammonia)
- Polyethylene plastic in pellet form (used as a roughage substitute in cattle)
- Mineral (e.g., calcium, phosphorus, salt, trace minerals) and mineral mixes/premixes
- Vitamins (e.g., vitamins A, B12, C, D, E) and vitamin-containing oils (cod liver oil, shark oil)
- Direct-fed microorganism (probiotics)
- Flavors (e.g., aloe vera gel concentrated, fennel, ginger)
- Preservatives
- Enzymes (e.g., lipase, pepsin)
- Other additives and “generally recognized as safe” (GRAS) ingredients (e.g., saccharin, polysorbate)
- “Nurtaceuticals” and unapproved substances (herbal and botanical products and dietary supplements such as comfrey, kava)
- By-products of the manufacture of antibiotics, enzymes, amino acids
- Non-food wastes, proposed but actual use is not verified (e.g., pulp and papermaking residues, newspaper, sawdust, municipal solid waste).

## Appendix C AFSS Draft Feed Hazardous Contaminants List

### DRAFT LIST OF POTENTIALLY HAZARDOUS CONTAMINANTS IN ANIMAL FEED AND FEED INGREDIENTS – Source FDA Animal Feed Safety System (AFSS)

#### 1. BIOLOGICAL CONTAMINANTS

- A. Transmissible Spongiform Encephalopathies
  - i. Bovine spongiform encephalopathy (BSE)
  - ii. Chronic wasting disease (CWD)
- B. Microbiological Contaminants
  - i. Bacteria
    - 1. Bacillus spp.
    - 2. Clostridium spp.
    - 3. Escherichia coli
    - 4. Mycobacterium spp.
    - 5. Pseudomonas spp.
    - 6. Salmonella enterica (various serotypes)
    - 7. Staphylococcus spp.

#### 2. CHEMICAL CONTAMINANTS

- A. Pesticides/Pesticide residues
  - i. Aldrin
  - ii. Benzene hexachloride
  - iii. Chlordane
  - iv. Chlorpyrifos
  - v. Chlorpyrifos-methyl
  - vi. Diazinon
  - vii. Dieldrin
  - viii. DDT+TDE+DDE
  - ix. Dicofof
  - x. Endosulfan
  - xi. Endrin
  - xii. Ethion
  - xiii. HCH alpha
  - xiv. HCH beta
  - xv. HCH gamma (lindane)
  - xvi. Heptachlor
  - xvii. Heptachlor + heptachlor epoxide
  - xviii. Hexachlorobenzene
  - xix. Malathion
  - xx. Methoxychlor
  - xxi. Mirex
  - xxii. Parathion
  - xxiii. Toxaphene (camphechlor)
  - xxiv. Tribuphos

- B. Mycotoxins
  - i. Aflatoxins ( $B_1+B_2+G_1+G_2$ )
  - ii. Fumonisin ( $B_1+B_1+B_3$ )
  - iii. Deoxynivalenol (DON or vomitoxin)
  - iv. Ochratoxin
  - v. Zearalonone

#### C. Heavy Metals/Radionuclides

- i. Arsenic
- ii. Cadmium
- iii. Chromium
- iv. Lead
- v. Americium 241
- vi. Cesium 134
- vii. Iodine 131
- viii. Plutonium 238
- ix. Ruthenium 103
- x. Ruthenium 106
- xi. Strontium 90

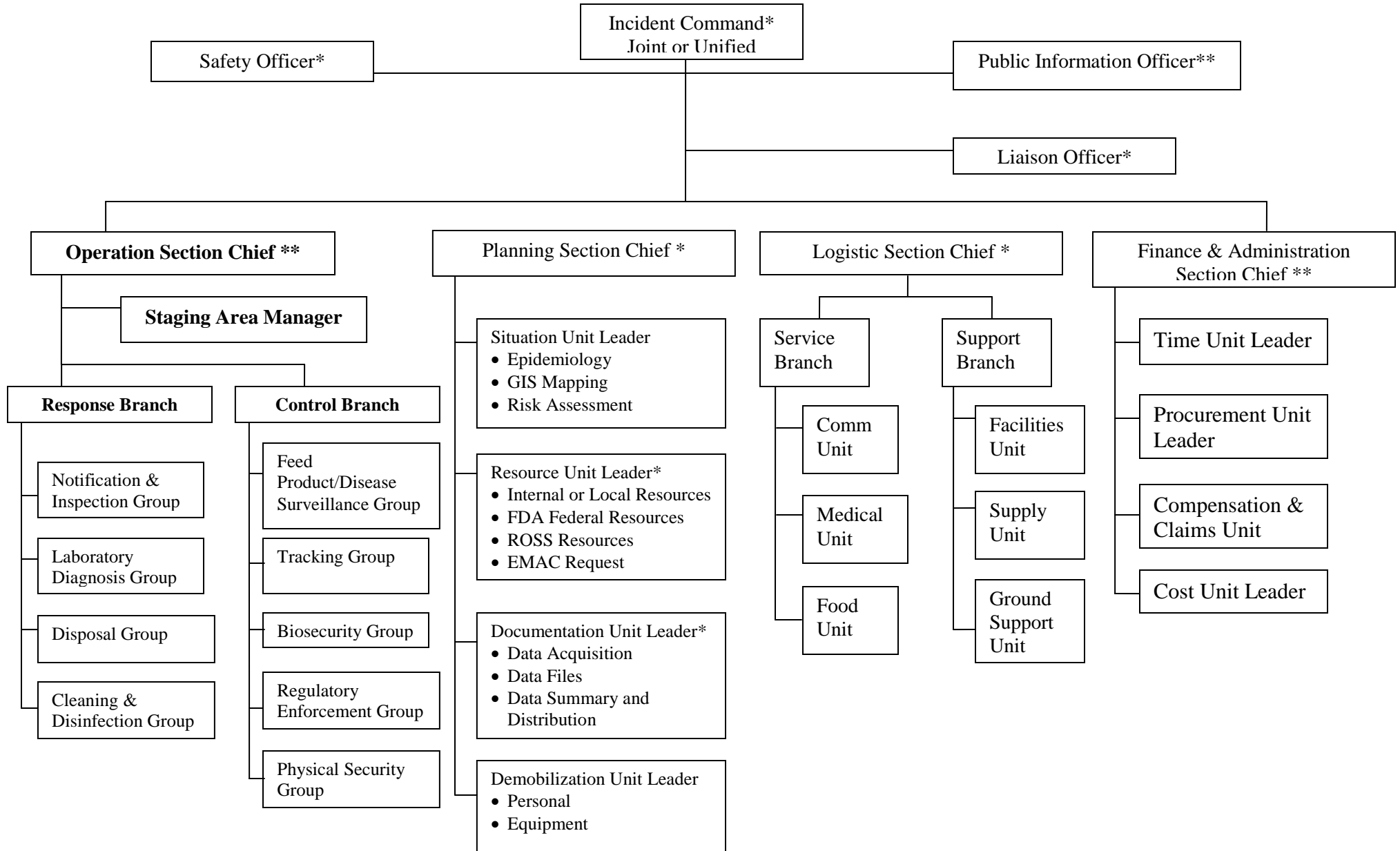
#### D. Other Chemicals

- i. Ethoxyquin
- ii. Dioxins
- iii. Mercury
- iv. Perchlorate
- v. Polychlorinated biphenyls (PCBs)
- vi. Polyethylene glycol
- vii. Selenium


#### 3. PHYSICAL CONTAMINANTS

- A. Plastic
- B. Glass
- C. Metal
- D. Other
  - i. Bones (vermin, etc.)
  - ii. Radiation from implanted devices in animals (see Radionuclides)

## Appendix D Incident Command Structure for a Hazardous Feed Response



## Appendix E Incident Complexity Analysis

<b>All-Hazard Incident Complexity Analysis</b>		
<b>Incident Name:</b>	<b>Date:</b>	
<b>Incident Number:</b>	<b>Time:</b>	
This Complexity Analysis is weighed based on the relevance to Life Safety, Incident Stabilization, and Property Conservation.		
Complexity Factors		Check if Pertinent
Impacts to Life, Property, and the Economy		
Urban interface; structures, developments, recreational facilities, or potential for evacuation.		<input type="checkbox"/>
Community and Responder Safety		
Performance of public safety resources affected by cumulative fatigue		<input type="checkbox"/>
Overhead overextended mentally and/or physically		<input type="checkbox"/>
Communication ineffective with tactical resources or dispatch		<input type="checkbox"/>
Incident action plans, briefings, etc. missing or poorly prepared		<input type="checkbox"/>
Resources unfamiliar with local conditions and tactics		<input type="checkbox"/>
Potential Hazardous Materials		
Potential of Hazardous Materials		<input type="checkbox"/>
Weather and other Environmental Influences		
Unique natural resources, special-designation areas, critical municipal watershed, protected species habitat, cultural value sites		<input type="checkbox"/>
Likelihood of Cascading Events		
Variety of specialized operations, support personnel or equipment		<input type="checkbox"/>
Potential Crime Scene (including Terrorism)		
Potential crime scene		<input type="checkbox"/>
Potential of terrorism		<input type="checkbox"/>
Political Sensitivity, External Influences, and Media Relations		
Sensitive political concerns, media involvement, or controversial policy issues		<input type="checkbox"/>
Organizational Performance Values and Product Development		
Non-IAP Products not being developed or deficient.		<input type="checkbox"/>
Area Involved, Jurisdictional Boundaries		
Incident threatening more than one jurisdiction and potential for unified command with different conflicting management objectives.		<input type="checkbox"/>
Availability of Resources		
Operations are at the limit of span of control.		<input type="checkbox"/>
Unable to property staff air operations.		<input type="checkbox"/>
Limited local resources available for initial attack/response		<input type="checkbox"/>
Heavy commitment of local resources to logistical support.		<input type="checkbox"/>
Existing forces worked 12 hours without success.		<input type="checkbox"/>
Percentage Score		%
If 10% or lower look at going to or staying at Type 4 Team.		
If 10% to 20% maintain or go to Type 3 Team		
If greater than 20% increase to Type 2 Team or additional overhead		
<b>Prepared By</b>	<b>Date:</b>	<b>Time:</b>

**Appendix F Personal Protective Equipment Guidelines<sup>1,2</sup>**

**Personal Protective Equipment Guidelines for Colorado Department of Agriculture Employees**

Environment	Zoonotic Disease not Diagnosed in the U.S.		Zoonotic Disease Diagnosed in the United States														
			Suspect Disease Outbreak Investigation.			Confirmed Zoonotic Disease Diagnosis – Emergency Response Activities											
Equipment						General Operations Areas Surveillance		Near or Contact Premises Surveillance		Biological Control Area Surveillance		Biological Control Area Activity					
			Routine Surveillance	Suspect Disease Outbreak Investigation	Routine Surveillance	Outdoor Environment	Indoor Environment	Outdoor Environment	Indoor Environment	Outdoor Environment	Indoor Environment	Outdoor Environment	Indoor Environment	Indoor Depopulation Preparation	Indoor Depopulation Re-Entry CO2 & CO2 Level Testing	Routine Surveillance Operations	Outdoor Environment
Coveralls, Work Uniforms, etc.	X																
Tyvek Coveralls		X	X			X		X		X		X	X				
Tychem Coveralls														X	X	X	
Exam gloves (heavy Disposable)	X	X	X	X	X	X	X	X	X	X plus	X plus	X plus	X plus	X plus	X plus	X plus	X plus
Rubber Gloves (heavy duty)										X	X	X	X	X	X	X	X
N-95 or N-100 Filtering Face piece*		X	X	X	X plus X or X	X	X	X plus	X plus	X plus						X plus	
Goggles (indirect vented)**				+/-			+/-	X or	X or	X or						X or	
Full-face APR with N-100 Canister								X	X	X		X		X	X	X	X
Self-contained breathing apparatus SCBA ***													X				
Boot Covers (Disposable)	+/- OR	+/- OR	+/- OR			+/- OR	+/- OR										
Rubber Boots	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

\* Examples of zoonotic disease with higher transmission risk would include influenza in swine or other non-avian species, anthrax, plague and tularemia, among others. \*\* A separate table has been developed for avian influenza. See HPAI PPE Guidelines.

<sup>1</sup> Where feed might be contaminated with a zoonotic disease agent or have resulted in animal disease.

<sup>2</sup> Guidelines for toxin agent or chemical would likely equal or be greater than this guidance. Reference such as the Emergency Response Guide (ERG). Specific Material Safety Data Sheets, or like resources should be considered and subsequent guidance provided by HAZMAT qualified safety officers or like qualified individuals.

**Appendix F Personal Protective Equipment Guidelines<sup>1</sup>**

<b>Personal Protective Equipment Guidelines for Colorado Department of Agriculture Employees</b>										
<b>Environment</b>	Suspect Disease not Diagnosed in the U.S.		Suspect Disease Diagnosed in the United States							
			Suspect Disease Outbreak Investigation	Confirmed Diagnosis of Suspect Disease – Emergency Response Activities						
Equipment	Routine Surveillance	Suspect Disease Outbreak Investigation		Routine Surveillance	General Operations Areas Surveillance	Near or Contact Premises Surveillance	Biological Control Area Surveillance	Biological Control Area Activity		
			Routine Surveillance Operations		Routine Surveillance Operations	Routine Surveillance Operations	Indoor Depopulation Preparation	Indoor Depopulation Re-Entry CO2 & CO2 Level	Routine Surveillance Operations	Any Cleaning and/or Disinfection Activity
Coveralls, Work Uniforms, etc.	X									
Tyvek Coveralls		X	X	X	X	X	X	X		
Tychem Coveralls									X	X
Exam gloves (heavy Disposable)	X	X	X	X	X	X plus	X plus	X plus	X plus	X plus
Rubber Gloves (heavy duty)						X	X	X	X	X
N-95 or N-100 Filtering Face piece*		X	X	X	X	X	X		X	X plus
Goggles (indirect vented)**										X or
Full-face APR with N-100 Canister										X
Self-contained breathing apparatus SCBA ***								X		+/-
Boot Covers (Disposable)	+/- OR	+/- OR	+/- OR	+/- OR	+/- OR					
Rubber Boots	X	X	X	X	X	X	X	X	X	X

\* Filtering face pieces are recommended to avoid transmission of a disease agent to other physical locations via the responders respiratory system as can occur with agents such as the Foot and Mouth virus.

\*\*Goggles /full race piece maybe considered for dust control in any location /activity and should routinely be used in cleaning and disinfection activities.

\*\*\* SCBA should be used in altered environments such as gas euthanasia or high risk confined space such as manure pits.

<sup>1</sup> Where feed might be contaminated with a non-zoonotic disease agent or have resulted in animal disease.

## Appendix G Regulatory Communication Network

County Emergency Managers of Colorado Current as of January 2011				
Colorado County	Emergency Manager	Phone Number (24-Hour)	Fax Number	Email
Adams	Heather McDermott	720-322-1400	720-322-1404	<a href="mailto:hmcdermott@co.adams.co.us">hmcdermott@co.adams.co.us</a>
Alamosa	Pet Magee	719-589-5807	719-587-0264	<a href="mailto:pete_magee@qwestoffice.net">pete_magee@qwestoffice.net</a>
Arapahoe	Lt. Greg Palmer	303-795-4711	720-874-4158	<a href="mailto:GPalmer@co.arapahoe.co.us">GPalmer@co.arapahoe.co.us</a>
Archuleta	Drew Petersen	970-263-2131	970-731-4800	<a href="mailto:dpetersen@archuletacounty.org">dpetersen@archuletacounty.org</a>
Baca	Riley Frazee	719-523-4511	719-523-6584	<a href="mailto:riley.frazee@seregion.com">riley.frazee@seregion.com</a>
Bent	Randy Freed	719-456-1363	719-456-0476	<a href="mailto:randyf@bentcounty.net">randyf@bentcounty.net</a>
Boulder	Mike Chard	303-441-4444	303-441-3884	<a href="mailto:mchard@bouldercounty.org">mchard@bouldercounty.org</a>
Broomfield	Kent Davies	303-438-6400	720-887-2001	<a href="mailto:kdavies@ci.broomfield.co.us">kdavies@ci.broomfield.co.us</a>
Chaffee	Lisa Ortega	719-539-2596	719-539-7442	<a href="mailto:lortega@chaffeecounty.org">lortega@chaffeecounty.org</a>
Cheyenne	Darcy Janssen	719-767-5633	719-346-8542	<a href="mailto:janssen@wildblue.net">janssen@wildblue.net</a>
Clear Creek	Kathleen Krebs	303-679-2393	303-679-2440	<a href="mailto:kkrebs@co.clear-creek.co.us">kkrebs@co.clear-creek.co.us</a>
Conejos	Rodney King	719-589-5804	719-376-5661	<a href="mailto:rodneymk@hotmail.com">rodneymk@hotmail.com</a>
Costilla	Matthew Valdez	719-672-3302	719-672-3003	<a href="mailto:Mathew.Valdez@costillacounty.net">Mathew.Valdez@costillacounty.net</a>
Crowley	Larry Reeves	719-267-5555 x1	719-267-3114	<a href="mailto:lreeves@crowleycounty.net">lreeves@crowleycounty.net</a>
Custer	Christe Feldmann	719-783-2270	719-783-9085	<a href="mailto:ccoem@centurytel.com">ccoem@centurytel.com</a>
Delta	Rob Fiedler	303-640-9999	970-874-2014	<a href="mailto:fiedler@deltacounty.com">fiedler@deltacounty.com</a>
Denver	Daniel Alexander	303-640-9999	720-865-7691	<a href="mailto:daniel.alexander@denvergov.org">daniel.alexander@denvergov.org</a>
Dolores	Todd Parisi	970-677-2500	970-677-2880	<a href="mailto:dcoem@yahoo.com">dcoem@yahoo.com</a>
Douglas	Fran Santagata	303-660-7500	303-814-8790	<a href="mailto:fsantagata@dcsheiff.net">fsantagata@dcsheiff.net</a>
Eagle	Barry Smith	970-479-2201	970-328-8694	<a href="mailto:barry.smith@eaglecounty.us">barry.smith@eaglecounty.us</a>
Elbert	LaRiea Thompson	303-805-6131	303-805-6159	<a href="mailto:LaRiea.Thompson@elbertcounty-co.gov">LaRiea.Thompson@elbertcounty-co.gov</a>
El Paso	Jim Reid	719-390-5555	719-575-8591	
Fremont	Steve Morrisey	719-276-5555	719-276-7304	<a href="mailto:steve.morrisey@fremontco.com">steve.morrisey@fremontco.com</a>
Garfield	Chris Bornholdt	970-625-8095	970-945-6430	<a href="mailto:cbornholdt@garfield-county.com">cbornholdt@garfield-county.com</a>
Gilpin	George Weidler	303-582-5500		<a href="mailto:gweidler@co.gilpin.co.us">gweidler@co.gilpin.co.us</a>
Grand	Trevor W. Denney	970-887-2732		<a href="mailto:tdenney@co.grand.co.us">tdenney@co.grand.co.us</a>
Gunnison	Scott Morrill	970-641-8000	970-641-7693	<a href="mailto:smorrill@gunnisoncounty.org">smorrill@gunnisoncounty.org</a>
Hinsdale	Jerry Gray	970-641-8000	970-944-2630	<a href="mailto:grayj@lakecity.net">grayj@lakecity.net</a>
Huerfano	Diego A. Bobian	719-989-8220		<a href="mailto:dbobian@huerfano.us">dbobian@huerfano.us</a>
Jackson	Kent Crowder	970-723-4242	970-723-4706	
Jefferson	James (Tim) McSherry	303-277-0211	303-271-4905	<a href="mailto:jmcsherr@jeffco.co.us">jmcsherr@jeffco.co.us</a>
Kiowa	Chris Sorensen	719-438-5411	719-438-5503	<a href="mailto:chris@kiowaoem.com">chris@kiowaoem.com</a>
Kit Carson	Darcy Janssen	719-346-8538	719-349-8542	<a href="mailto:janssen@wildblue.net">janssen@wildblue.net</a>
Lake	Mike McHargue	719-486-1249	719-486-0139	<a href="mailto:mikemchargue@hotmail.com">mikemchargue@hotmail.com</a>
La Plata	Butch Knowlton	970-385-2900	970-382-6272	<a href="mailto:knowltonbk@co.laplata.co.us">knowltonbk@co.laplata.co.us</a>
Larimer	Erik Nilsson	970-416-1985	970-498-9203	<a href="mailto:nilssoed@co.larimer.co.us">nilssoed@co.larimer.co.us</a>
Las Animas	Bill Cordova	719-846-2211	719-845-2598	<a href="mailto:bcordova@amigo.net">bcordova@amigo.net</a>
Lincoln	Kenneth Morrison	719-743-2426	719-743-2280	<a href="mailto:lcadmin@lincolncountyco.us">lcadmin@lincolncountyco.us</a>
Logan	Bob Owens	970-522-3512	(970) 521-0632	<a href="mailto:Owens@sterlingcolo.com">Owens@sterlingcolo.com</a>

Colorado Department of Emergency Management. <http://www.dola.state.co.us/dem/localem.htm>. Jan 2011



## Appendix G Regulatory Communication Network

County Emergency Managers of Colorado				
Current as of January 2011				
Colorado County	Emergency Manager	Phone Number (24-Hour)	Fax Number	Email
Mesa	Andrew Martsof	970-250-1279		<a href="mailto:andrew.martsof@mesacounty.us">andrew.martsof@mesacounty.us</a>
Mineral	William Fairchild	719-658-2600	719-658-2764	<a href="mailto:mincosheriff@centurytel.net">mincosheriff@centurytel.net</a>
Moffat	Tom Soos	970-824-6501	970-826-2423	<a href="mailto:tom.soos@thmcraig.org">tom.soos@thmcraig.org</a>
Montezuma	Doug Parker	970-565-8441	970-565-3991	<a href="mailto:dparker@so.montezuma.co.us">dparker@so.montezuma.co.us</a>
Montrose	Ike Holland	970-252-4010	970-249-7761	<a href="mailto:iholland@montrosecounty.net">iholland@montrosecounty.net</a>
Morgan	Steve Enfante	970-867-8531	970-867-7344	<a href="mailto:senfante@co.morgan.co.us">senfante@co.morgan.co.us</a>
Otero	Chris Johnson	719-384-5941	719-384-2272	<a href="mailto:cjohnson@oterogov.org">cjohnson@oterogov.org</a>
Ouray	Alan Staehle	970-252-4020		<a href="mailto:awsouray@aol.com">awsouray@aol.com</a>
Park	Brain Foltz	719-836-4121	719-836-4156	<a href="mailto:bfoltz@parkco.us">bfoltz@parkco.us</a>
Phillips	Randy Schafer	970-854-3144	970-854-3811	<a href="mailto:rschafer@pctc.net">rschafer@pctc.net</a>
Pitkin	Ellen Anderson	970-920-5300	970-920-5307	<a href="mailto:ellena@co.pitkin.co.us">ellena@co.pitkin.co.us</a>
Prowers	Staffon Warn	719-336-3977	719-336-4883	<a href="mailto:staffon.warn@prowerscounty.net">staffon.warn@prowerscounty.net</a>
Pueblo	Karen Ashcraft	719-583-6250	719-583-6218	<a href="mailto:ashcraft@co.pueblo.co.us">ashcraft@co.pueblo.co.us</a>
Rio Blanco	John Hutchins	970-878-9620	970-878-3127	<a href="mailto:rbcem@co.rio-blanco.co.us">rbcem@co.rio-blanco.co.us</a>
Rio Grande	Vic Webb	719-657-4000		<a href="mailto:rgcoem@riograndecounty.org">rgcoem@riograndecounty.org</a>
Routt	Bob Struble	970-846-1552		<a href="mailto:bstruble@co.route.co.us">bstruble@co.route.co.us</a>
Saguache	Jim Felmlee	719-655-2525		<a href="mailto:jfelmlee@amigo.net">jfelmlee@amigo.net</a>
San Juan	Kristina Maxfield	970-387-5531	970-387-0251	<a href="mailto:sanjcoem@yahoo.com">sanjcoem@yahoo.com</a>
San Miguel	Jennifer Dinsmore	970-728-1911	970-728-9206	<a href="mailto:jenniferd@sanmiguelcounty.org">jenniferd@sanmiguelcounty.org</a>
Sedgwick	Mark Turner	970-474-3355	970-474-2607	<a href="mailto:ptsports57@yahoo.com">ptsports57@yahoo.com</a>
Southern Ute Indian Tribe	Kathie Gurule	970-563-4401	970-563-0215	<a href="mailto:kgurule@southern-ute.nsn.us">kgurule@southern-ute.nsn.us</a>
Summit	Joel Cochran	970-453-2232 ext 336	970-453-7329	<a href="mailto:jcochran@co.summit.co.us">jcochran@co.summit.co.us</a>
Teller	Steve Steed	719-687-9652	719-687-1202	<a href="mailto:steeds@co.teller.co.us">steeds@co.teller.co.us</a>
Ute Mountain Ute Indian Tribe	John Trocheck	970-565-3706	970-564-5443	<a href="mailto:Jtrocheck@utemountain.org">Jtrocheck@utemountain.org</a>
Washington	Mike McCaleb	970-345-2244	970-345-2701	<a href="mailto:mmccaleb@co.washington.co.us">mmccaleb@co.washington.co.us</a>
Weld	Roy Rudisill	970-304-4015 x2700	970-304-6543	<a href="mailto:rudisill@co.weld.co.us">rudisill@co.weld.co.us</a>
Yuma	Roger Brown	970-848-0464	970-848-0160	<a href="mailto:yumaoem@wycomm.org">yumaoem@wycomm.org</a>

Colorado Department of Emergency Management. <http://www.dola.state.co.us/dem/localem.htm>. Jan 2011

## Appendix G Regulatory Communication Network

### County Sheriffs of Colorado (Cont.) Current as of January 2011

Colorado County	Sherriff	Phone Number
Adams	Doug Darr	303-655-3216
Alamosa	David Stong	719-589-6608
Arapahoe	J. Grayson Robinson	720-874-4165
Archuleta	Peter Gonzales	970-264-2131
Baca	David Campbell	719-523-4511
Bent	David Encinias	719-456-0795
Boulder	Joseph Pelle	303-441-4605
Broomfield*	Chief Tom Deland	303-438-6400
Chaffee	William Palmer Jr.	719-539-2814
Cheyenne	Ken Putman	719-767-5633
Clear Creek	Don Krueger	303-569-3251 ext. 376
Conejos	Robert Gurule	719-376-2196
Costilla	Amos Medina	719-672-3302
Crowley	Miles Clark	719-267-5555
Custer	Fred Jobe	719-783-2270
Delta	Fred McKee	970-874-2000
Denver*	Chief William Lovingier	720-913-2000
Dolores	Jerry Martin	970-677-2257
Douglas	David Weaver	303-660-7541
Eagle	Joseph D. Hoy	970-328-6611
Elbert	Shayne Heap	303-621-2027
El Paso	Terry Maketa	719-520-7204
Fremont	Jim Beicker	719-276-5555
Garfield	Lou Vallario	970-945-0453
Gilpin	Bruce Hartman	303-582-1060
Grand	Rodney Johnson	970-725-3344
Gunnison	Rickard Bescker	970-641-1113
Hinsdale	Ronald Bruce	970-944-2291
Huerfano	Bruce Newman	719-738-1600
Jackson	Scott Fischer	970-723-4242
Jefferson	Ted Mink	303-271-5305

County Sheriffs of Colorado. <http://www.csoc.org/counties.asp>. Jan 2011

\*Chief of Police for Bloomberg and Denver Counties

## Appendix G Regulatory Communication Network

### County Sheriffs of Colorado (Cont.)

Current as of January 2011

Colorado County	Sherriff	Phone Number
Kiowa	Forrest Frazee	719-438-5306
Kit Carson	Tom Ridnour	719-346-8934
Lake	Ed Holte	719-486-1249
La Plata	Duke Schirard	970-247-1157
Larimer	Justin Smith	970-498-5100
Las Animas	James Casias	719-846-2211
Lincoln	Tom Nestor	719-743-2426
Logan	Brett Powell	970-522-2578
Mesa	Stan Hilkey	970-244-3500
Mineral	Ronald Bruce	719-658-2600
Moffat	Tim Jantz	970-824-4495
Montezuma	Dennis Spruell	970-565-8452 x303
Montrose	Rick Dunlap	970-249-6606
Morgan	James E. Crone	970-867-2461
Otero	James Casias	719-384-5941
Ouray	Dominic Mattivi	970-325-7272
Park	Fred Wegener	719-836-2494
Phillips	Charles Urbach	970-854-3644
Pitkin	Joe Disalvo	970-920-5300
Prowers	James Faull	719-336-8050
Pueblo	Kirk Taylor	719-583-6125
Rio Blanco	Si H. Woodruff	970-878-5023
Routt	Garrett Wiggins	970-879-1090
Saguache	Mike Norris	719-655-2544
San Juan	Sue Kurtz	970-728-4442
Sedgwick	Randy Peck	970-474-3355
Summit	Sheriff John Minor	970-453-2232
Teller	Mike Ensminger	719-687-9652
Washington	Larry Kuntz	970-345-2244
Weld	John Cooke	970-356-4015 x2801
Yuma	Chad Day	970-332-4805

County Sheriffs of Colorado. <http://www.csoc.org/counties.asp>. Jan 2011

\*Chief of Police for Bloomberg and Denver Counties

## Appendix H CDA Feed Compliant Protocols

The following information is the Colorado Department of Agriculture (CDA) Animal Feed Complaint Policy and Procedures for reporting animal feed complaints. The purpose of this document is to provide the CDA's Division of Inspection and Consumer Services (IC&S) with a consistent protocol for addressing animal feed complaints resulting from a violation of the Colorado Feed Law (Colorado Revised Statutes 35-60-101 to 35-60-115) and to inform the citizens of Colorado on the procedures for reporting and responding to animal feed complaints.

CDA feed inspectors are called upon to investigate complaints from livestock producers, pet owners, feed mills and veterinarians when an animal health problem may be feed-related. If within such a complaint, animals become ill or die from animal feed and/or the investigation must expand to the coordination with other regulating agencies in the food chain, the investigation will be considered an emergency response and trigger activation of the CDA Emergency Animal Feed Response Plan.

### Valid Complaint

To successfully investigate an animal feed complaint, there must be an identifiable aggrieved party (complainant) and sufficient information to validate the complaint. As such, complainants must provide adequate information when reporting a complaint in order for the CDA to consider it valid.

For the CDA to investigate an animal feed complaint, certain criteria must be met before an investigation may proceed. The following are possible factors that will prevent an investigation from occurring.

- 1. Absence of Veterinarian Involvement:** No veterinarian was involved in a complaint of animal sickness or death.
- 2. Analysis for Informational Purposes Only:** Complaint requests analysis of feed for informational purposes only. Investigators should provide names of commercial laboratories that can perform this service.
- 3. Official Sample Unavailable:** No feed product is available to obtain an official sample, or the complainant has caused the product to lose its original identity.
- 4. Complaint Requests Anonymity:** The complainant asks that the manufacturer not be informed of their complaint. Complaint reports are subject to open records requests and anonymity cannot be protected.
- 5. Inadequate Documentation:** The complainant has retained no documents which identify the source of product(s). Or, complainant is unable to provide adequate documentation (labels, invoices, weight tickets, etc) covering shipment at the time of investigation.
- 6. Supervisor's Approval:** Complaint was not discussed or authorized by Inspector's Supervisor.

## **Appendix H CDA Feed Compliant Protocols**

### **Initial Response to Complainant**

Normal business hours for complaint response are Monday through Friday, between the hours of 8 a.m. to 5 p.m. The IC&S will attempt to contact the complainant by telephone or electronic mail by the end of the next business day. Response time may vary depending on staff availability, with the understanding that complaints will be responded to as soon as reasonably possible

### **Feed Investigation Process**

The role of the CDA in a complaint investigation is that of an impartial fact-collector. CDA staff must remain non-biased in expressing views or opinions concerning a particular situation. It is not the role of the CDA to act as a claims adjuster, attorney, or counselor. CDA investigators assess the facts, combine them with laboratory findings, and prepare a report for the parties involved.

If the CDA initiates regulatory actions against a feed mill as a result of a complaint investigation's findings, the complainant should not expect to receive compensation as a direct result. It is the complainant's responsibility to initiate their own legal proceedings against the firm if they feel they are entitled to compensation for damages.

When the CDA receives a feed complaint a series of investigation steps will be initiated to try and determine if the cause of the animal health issue is from an adulterated feed source. In the event a CDA inspector receives a complaint, the complainant information is forward on to the Feed Administrator.

The following is an investigation framework the CDA will follow in a feed complaint process.

#### **1. Determine if adequate information is available for an investigation**

In response to a complaint, the IC&S Feed Administrator will contact the complainant and gather information about the complaint. During this interview, arrangements will be made to conduct a site visit where the affected animal(s) resides. As included in Attachment A, specific types of information collected in the initial interview follows.

#### **Complainant Information**

Name & Contact Information

#### **Product Details**

Name and Type of Feed

Description of type of container

Lot numbers

Amount purchased / on hand

Invoice Number

Purchased Date

Name and Address of feed supplier

Name of Address of Manufacturer

If products were custom-mixed who mixed and furnished ingredients

## **Appendix H CDA Feed Compliant Protocols**

### **Animal Information**

Type of animals  
Approximate age & sex of animals  
Total number on feed  
Total number ill  
Length of time feed was fed before symptoms were noted.

### **Feed Practices**

Details of feeding history  
Amount Fed  
Rate of feeding  
Details on other supplements & medications  
Length of time product was fed

### **On-Site Environmental Information**

Location of feed storage  
Cleanliness of animal living area  
Feed Storage  
Location of chemicals in approximation to feed storage

## **2. Collect Information from Veterinarian**

The Feed Administrator will contact the complainant's veterinarian. Information and details provided by the veterinarian will aid the investigation. Types of information collected are outlined below.

- Details on illness which led to the complaint may include veterinarian's report history of treatment provided
- Veterinarian clinic address & telephone number
- Results of autopsy
- If conducted, laboratory results from other sources
- Veterinarian's opinion on whether animal's illness is feed related and if feed related, what are the most likely causes of the illness.

## **3. Initiate a Dialogue with Feed Supplier and / or Feed Manufacturer**

If the investigation involves a feed manufacturer, the Feed Administrator will contact the feed supplier(s) and feed manufacture to inform them of the current investigation and suspected adulterated feed. Site visits may also occur by inspectors to collect additional information. Information collected includes:

- When available, collection of all feed and feed ingredients supplied by the mill that were sold or custom-mixed relative to the investigation. All formula feeds collected should have the same lot number as the feed samples on site.
- Obtain additional background information to confirm the issues given by the complainant. Inspectors will obtain copies of the last several purchases completed with the mill.

## **Appendix H CDA Feed Compliant Protocols**

- Inspectors will tactfully question any outstanding bill(s) that may exist between the mill and the complainant and the general history of transactions between the manufacturer and the complainant.

### **4. Laboratory Analysis**

Based on information collected during the investigation, official samples of the feed in question will be run to test for specific contaminants. In some cases, the CDA may send the sample to an outside laboratory.

### **5. Investigation Summary Report**

Upon completing the investigation, a summary report will be generated with a description summarizing the investigation findings. The summary report will be made available to the complainant, the manufacturer, and the store or distributor where any samples may have been collected.

### **Other sources of help in the event of an animal death:**

#### **Colorado State University Veterinary Diagnostic Laboratory**

Veterinarians use this laboratory to confirm the causes of death indicated by symptoms they have observed, but its services are also available to the general public. In the case of suspected feed involvement, results you may have obtained from the CSU are usually quite valuable to our investigation.

#### **Commercial Feed Testing Laboratories**

Commercial laboratories provide various types of analyses on animal feeds.

## Appendix H Feed Complaint Procedures

### Attachment A Feed Complaint Report Forms

#### COMPLAINANT INFORMATION

Name: \_\_\_\_\_ Date / Time Interview: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Office Phone: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_

#### PRODUCT INFORMATION

Product Name (if custom-formula, attach ingredients):  
\_\_\_\_\_

Lot Number: \_\_\_\_\_

Description of type of container: \_\_\_\_\_

Purchased From: \_\_\_\_\_

Address: \_\_\_\_\_

Invoice NO. : \_\_\_\_\_ Date: \_\_\_\_\_

Amount Purchased: \_\_\_\_\_ Amount on Hand: \_\_\_\_\_

Was the Supplier Informed? Yes \_\_\_\_\_ No \_\_\_\_\_

Did the Supplier take samples? Yes \_\_\_\_\_ No \_\_\_\_\_

Was the Manufacturer Informed? Yes \_\_\_\_\_ No \_\_\_\_\_

#### ANIMAL INFORMATION

Species: \_\_\_\_\_ Number of animals affected: \_\_\_\_\_

Age: \_\_\_\_\_ Sex: \_\_\_\_\_ Total number on feed: \_\_\_\_\_

Amount of Fed: \_\_\_\_\_ Rate of Feeding \_\_\_\_\_

Other supplements? \_\_\_\_\_

Medications: \_\_\_\_\_

Total Ration (supplements, hay, grain, pasture, etc.) \_\_\_\_\_  
\_\_\_\_\_



## Appendix H Feed Complaint Procedures

Recent Changes in Feeding Practices: \_\_\_\_\_

\_\_\_\_\_

Length of time fed before Symptoms: \_\_\_\_\_

Symptoms: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of Sick Animals: \_\_\_\_\_ Number of Deceased Animals \_\_\_\_\_

Have you contacted your veterinarian? Yes \_\_\_\_\_ No \_\_\_\_\_

Did your veterinarian examine the animal(s)? Yes \_\_\_\_\_ No \_\_\_\_\_

### VETERINARIAN INFORMATION

Veterinarian Name: \_\_\_\_\_

Time/ Date of Conversation: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Office Address: \_\_\_\_\_

Date of Examination: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Treatment: \_\_\_\_\_

\_\_\_\_\_

Animal Response: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Appendix H Feed Complaint Procedures**

Conditions of Feeding Area, Water Supply, Confinement Area, etc. \_\_\_\_\_

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Conditions of Storage Area, Feeders, Feed ( Moldy, Wet, Odors, etc.) \_\_\_\_\_

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Necropsy Results \_\_\_\_\_

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General Comments from Veterinarian \_\_\_\_\_

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**INSPECTOR SITE VISIT- Comments**

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## I. Chain of Custody Protocols

 <b>Colorado Department of Agriculture- Biochemistry Laboratory</b>	
Title: Chain-of-Custody Instructions Version: Original	Number: ID002A
<b>Related Form Number: SLL009A v02</b>	<b>Page 1 of 3</b>

### Work Instruction –Chain-of-Custody Record Forms

**1. Purpose:**

This Work Instruction (WI) describes the information required to complete the Inspection & Consumer Services (ICS) Division multi-program chain-of-custody record. This WI is a guidance document intended to assist Colorado Department of Agriculture (CDA) inspectors and sampling personnel in completing chain-of-custody records for samples collected.

**2. Scope:**

This WI applies to all samples collected by CDA inspectors and sampling personnel for samples intended to be analyzed at the CDA Biochemistry laboratory.

**3. Related Form(s):**

Form SLL009A Chain-of-Custody Record

**4. Instructions for Completing Chain-of-Custody Records:**

4.1 Header Information


The header information consists of the following entries:

- Customer (Inspector/Sampler) Name – enter the name of the inspector, sampler, or the person collecting the sample.
- Location/Facility (if applicable) – Used to identify the facility or location if all samples listed on the custody record are collected to a single location (e.g., a custom meat plant, feed/fertilizer producer or distributor, etc.). Mark this section “N/A” if samples listed on the custody record are collected from multiple locations.
- Business Address – enter the inspector/sampler’s business Street number, Street name, Apt/Unit number; City, State, Zip code.
- Bus. Phone – enter the inspector/sampler’s business telephone number with area code.
- Bus. Fax – enter the inspector/sampler’s business fax telephone number with area code.
- Prelim Results – For most routine sampling, check-off the N/A box; specialty or investigative sampling may require data delivery ASAP and samplers should mark the box of preferred method of delivery (Fax or E-mail).

4.2 Lab Use Only Information

This section is only for completion by Biochemistry Laboratory (BCL) personnel.

## I. Chain of Custody Protocols

 <b>Colorado Department of Agriculture- Biochemistry Laboratory</b>	
Title: Chain-of-Custody Instructions Version: Original	Number: ID002A
<b>Related Form Number: SLL009A v02</b>	<b>Page 2 of 3</b>

### 4.3 Sample Information

Sample information consists of the following entries:


- Sample identification – enter the assigned sample number
- Depth (if applicable) – enter the depth interval (below ground surface) where the sample was collected; (**Note:** this section usually only applies to groundwater and soil sampling)
- Date – enter the date the sample was collected
- Time – enter the time (use military time) the sample was collected
- Matrix – enter the type of material sampled (water, liquid, soil, solid, sludge, etc.)
- Container (# and Size & Type) – enter the number of containers collected and the size & type used for sampling (e.g., 2 and 40-mL glass; 1 and 16-ounce bag)
- Preservative (if used) – enter the chemical(s) used to preserve the sample; (**Note:** this section usually only applies to water and groundwater samples)
- TAT – enter the turnaround time required (**Note:** usually only applies to samples with short holding times, e.g., Nitrite in groundwater-48 hours)
- Tests Requested (fill-in, then X) – enter testing method number (e.g., 8081 for Pesticides), “Feed-FARS”, “Fertilizer-FARS”, or other testing identifier (e.g., AOAC 964.65) and enter an X in the column for each corresponding sample
- Lab Use Only – enter the laboratory sample number (**Note:** this information to be entered only by BCL personnel)

### 4.4 Sample Collection and Shipping Information

Sample collection and shipping information consists of the following entries:

- Program—check-off the program for which the samples were collected; for non-routine samples, write in the program name
- How was sample sent to lab?—enter the method of sample delivery (hand-carried, UPS, DHL, USPS, other shipper)
- Comments – Use this space for denoting anything about the samples that would be helpful to know (e.g., special hazards, sampling conditions, alternative packaging used, etc.) or specific handling instructions.
- Sample Collection (Check Appropriate Box) information – check the boxes YES, NO, or N/A, for each of the three conditions (Packing Material Added, Shipping Box Sealed, Additional Info Attached?) and then hand-write the date shipped on the blank line.

## I. Chain of Custody Protocols

 <b>Colorado Department of Agriculture- Biochemistry Laboratory</b>	
Title: Chain-of-Custody Instructions Version: Original	Number: ID002A
<b>Related Form Number: SLL009A v02</b>	<b>Page 3 of 3</b>

### 4.5 Custody Transfers

Custody transfers between inspectors and/or samplers, and subsequent receipt at BCL are documented in the Relinquished and Received by boxes.


- Relinquished by (print) – enter the name and signature of the first person to relinquish the samples. This should be the same inspector or sampler identified on the custody record (on the “Customer (Inspector/Sampler) Name” line in upper left).
- Received by (print) – enter the name and signature of the next person to which samples were transferred. Normally this box would be completed by BCL personnel sector or sampler transferred custody to an intermediate inspector or sampler.

### 5. **Additional Instructions:**

Along with completing the requested information on the Chain-of-Custody Record, the following additional instructions should be followed:

- Use ink or indelible pen to complete the form
- Errors should be corrected by marking a single line through the error, enter the correct information, and then initial and date the correction.
- Record only factual information on the form. Do not add opinions or other extraneous information into the comments box.
- If a section of the form is not applicable, mark a line through that section rather than leaving it blank.
- If more than two custody transfers are required to get the samples to the laboratory, attach a second custody record and use only the custody transfer section of the second record form to complete the chain to the laboratory.

# I. Chain of Custody Protocols

	<b>Colorado Department of Agriculture, Inspection &amp; Consumer Services, Biochemistry Laboratory</b> <b>2331 West 31<sup>st</sup> Avenue, Denver, CO 80211-3859 Phone (303) 477-0014 Fax: (303) 867-4265</b>
Title: Chain-of-Custody Form Number: SLL009A Version: 02	Procedure No.: SL-LBOP-009 Revision: Original Page ___ of ___

Customer (Inspector / Sampler) Name:		<b>LAB USE ONLY</b>	
Location / Facility (if applicable):			
Business Address:			
Business E-mail:			
Business Phone: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Co Dept Ag Project #:	
Business Fax:		Customer Project Manager:	
Prelim Results: Fax <input type="checkbox"/> E-Mail <input type="checkbox"/> N/A <input type="checkbox"/>		Control #:	
		Customer Project:	
		Project Name:	
		Project Address:	

SAMPLE INFORMATION									TEST(S) REQUESTED (fill-in, then 'x')					Lab Use Only
Sample Identification	Depth (if Applic.)	Date	Time	Matrix	Container		Preservative (if used)	TAT	In Fats					Sample No.
					#	Size & Type								

Program: <input type="checkbox"/> Micro <input type="checkbox"/> Feed <input type="checkbox"/> Fertilizer <input type="checkbox"/> Pesticides <input type="checkbox"/> Groundwater	Sample Collection (Check Appropriate Box) <table style="width:100%; border-collapse: collapse;"> <tr> <td>YES</td><td>NO</td><td>N/A</td></tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table>	YES	NO	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shipping Information (Check Appropriate Box) <table style="width:100%; border-collapse: collapse;"> <tr> <td>YES</td><td>NO</td><td>N/A</td></tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table>	YES	NO	N/A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																											
How were samples sent to lab?	Sample Bag Sealed Tamper Seal Applied Initial on Tamper Seal Sample Bag Packed in Box	Packing Material Added Shipping Box Sealed Additional info Attached? Date Shipped: _____																											
Comments:	1. Relinquished by (print): _____ Signature: _____	1. Received by (print): _____ Date: _____ Signature: _____ Time: _____																											
	2. Relinquished by (print): _____ Signature: _____	2. Received by (print): _____ Date: _____ Signature: _____ Time: _____																											

## J. Decontamination Guidance

The following table provides information on the potential decontamination options that can be used in disinfecting and cleaning facilities and equipment with biological, chemical or radiological threat agents. Guidance presented in this appendix is from the USDA, FSIS's Guidelines for the Disposal of Intentionally Adulterated Food Products and the Decontamination of Food Processing Facilities.

Potential Decontamination Options								
Decontamination Agents <sup>1</sup>	Applications	Agent Categories <sup>2</sup>						Special Considerations
		Bacteria	Spores	Viruses & Parasites	Toxins	Chemicals	Radiological Agents	
<b>Liquid Antimicrobials</b>								
Bleach <sup>4</sup>	Hard, non-porous surfaces	√	√	√	√			To kill spores and other microorganism, a bleach solution close to but not above pH 7 (neutral) and 5,000 to 6,000 parts per million (ppm) should be prepared by mixing one part bleach (5.25%-6.00%) to one part white vinegar (acetic acid) to eight parts water. Bleach and vinegar must not be combined together directly, rather some water must first be added to the bleach (e.g., two parts water to one cup of bleach), then vinegar (e.g., one cup), and then the rest of water 9e.g. six parts). The pH of the solution should be tested with a paper test strip. Surfaces should remain in contact with the bleach solution for 60 minutes (repeated applications will be necessary to keep the surfaces wet).
Liquid chlorine dioxide <sup>4</sup>	Hard Surfaces	√	√	√	√			Liquid chlorine dioxide (500 mg/L) should be applied at room temperature (68 <sup>0</sup> F, 20 <sup>0</sup> C) and have a contact time of at least 30 minutes.
Liquid Hydrogen peroxide-peroxyacetic acid <sup>4</sup>	Hard Surfaces	√	√	√	√			Peroxyacetic acid (5,000 parts per million(ppm) should be applied at room temperature (68 <sup>0</sup> F, 20 <sup>0</sup> C) and have a contact time of between 10 to 20 minutes.
<b>Physical Methods</b>								
Heat	Hard Surfaces	√	√	√	√			Heat and/or autoclaving can be used to inactivate biological agents. The effectiveness of the treatment depends upon time / temperature.
Steam Cleaning	Hard Surfaces	√	√	√	√			Steam cleaning physically extracts biological agents from equipment surfaces.
	Facilities & Structures					√		
Heat Pressure Heat	Hard Surfaces	√	√	√	√	√		Gas turbine jet engines are used to deliver hot exhaust gases, at high velocity, to decontaminated large items and equipment. <sup>3</sup>
	Facilities & Structures					√		

### Potential Decontamination Options (Cont.)

## J. Decontamination Guidance

Decontamination Agents	Applications	Agent Categories <sup>2</sup>						Special Considerations
		Bacteria	Spores	Viruses & Parasites	Toxins	Chemicals	Radiological Agents	
<b>Physical Methods (Cont.)</b>								
Photochemical	Hard Surfaces	√		√				All microbes and many organophosphates can be inactivated by UV or X-ray irradiation, but spores and biological toxins are more resistant.
	Facilities & Structures	√		√				
High Pressure water/slurry jets	Hard Surfaces					√		Hot or cold high pressure (2000psi) water/slurry jet can be used to remove surface contamination. Water should be collected and
Quaternary ammonia compounds <sup>4</sup>	Hard Surfaces	√	√	√	√	√		The application of sodium hypochlorite should be alternated with quaternary ammonia compounds (quats) in case the toxin is acid resistant.
Sodium hydroxide solution <sup>4</sup>	Hard Surfaces	√	√	√	√	√		Decontamination of containers should be done using 5% sodium hydroxide solution, and rinsed with large quantities of water. Residues in contaminated containers should be emptied
<b>Gas or Vapor Antimicrobials</b>								
Gaseous chlorine dioxide <sup>4</sup>	Facilities & Structures	√	√	√	√			Chlorine dioxide gas (500-750 ppm) should be applied for a minimum of 12 hours, at a minimum temperature of 70°F, and at a minimum relative humidity of 65%.
Ethylene oxide	Facilities & Structures	√	√	√	√			Application concentration and duration not specified.
Hydrogen peroxide vapor <sup>4</sup>	Facilities & Structures	√	√	√	√			Application concentration and duration not specified.
Methyl bromine gas	Facilities & Structures	√	√	√				Methyl bromine gas is registered for the fumigation of soil, buildings, and quarantine shipments, however, some uses are being phased out under the Montreal protocol.



## J. Decontamination Guidance

Decontamination Agents	Applications	Agent Categories						Special Considerations
		Bacteria	Spores	Viruses & Parasites	Toxins	Chemicals	Radiological Agents	
<b>Liquid Cleaners</b>								
Soap and water	Hard Surfaces and facilities & structures					√	√	In general, decontamination of metal surfaces in contact with radioactive materials can be achieved by scrubbing the surface with mild soap and water on bleach solution.
Commercial products containing EDTA	Hard Surfaces and facilities & structures						√	Commercial products containing EDTA and various solubilizers (e.g. "Left-Away" <sup>10</sup> ) may enhance effectiveness. Spent solvents, rags and paper towels must be collected
Sand blasting	Hard Surfaces and facilities & structures						√	High pressure sandblasting to is preformed to remove surface contamination and is useful for porous surface like concrete.
Dismantling removal, replacement	Hard Surfaces and facilities & structures						√	Physical removal of selected components. Removed materials are shipped to disposal site as low level radioactive waste.
Demolition	Facilities structures						√	Complete destructive and/or disposal of facility or equipment, but only after decontamination.

<sup>1</sup> Sources used to develop the listed decontamination agents and techniques.

A .List of chemical agents that were authorized for use in past anthrax incident for decontamination purposes by EPA Office of Solid Waste Emergency Response (OSWER) Crisis Exemption (CE) statute under Section 18 of FIFRA. For more information, please refer to the following link: <http://www.epa.gov/epahome/hi-anthrax.htm>.

b. Biological and chemical list compiled by the FDA and FSIS.

c. Office of the Deputy Prime Minister of UK in "Strategic National Guidance—The decontamination of buildings and infrastructures exposed to Chemical, Biological, Radiological or Nuclear (CBRN) Substances or Material", May 2004.

d. Inchem – website that provides chemical safety information on several pesticides. For more information on recommendation decontamination procedures for specific pesticides, refer to the following link: <http://www.inchem.org>

e. University radioactive material decontamination procedures – Tulane University, Iowa State University, etc.

<sup>2</sup> See Table A-1 for a detailed list of agents within the different categories.

<sup>3</sup> High pressure heat and high pressure water techniques are applicable for decontamination of organophosphate chemical agents, but not for other chemical agents.

<sup>4</sup> The use of this option to inactivate B. Anthracis spores and other biological warfare agents is not registered and requires an exemption from EPA.

<sup>5</sup> Sodium hydroxide solution is applicable for decontamination of all checked agents except for arsenic compounds, cyanide, mercury, and strychnine.

Source: USDA, Food Safety and Inspection Service, Guidelines for the Disposal of Intentionally Adulterated Food Products and the Decontamination of Food Processing Facilities, 2006.

## **K. Federal, State, and Local Agencies Roles and Responsibilities**

### **Lead Agency**

#### Colorado Department of Agriculture

The CDA, I&CS Division is the lead agency in any feed incident related emergency occurring in Colorado. CDA will respond by using the NIMS protocol. Their overall responsibility will encompass command and management of a feed incident, overseeing the management and dissemination of resources, establishing a communication and information management system and securing supporting technologies. The Commissioner of Agriculture and the Director of Inspection and Consumer Service Division may use any or all of the following action steps to control and/or halt the feed event.

- Assign an emergency response level to the incident.
- In consultation with the FDA, determine the scope and level of initial response and initiate a task force.
- Provide analytical testing of animal feed samples for pathogens, toxins and chemicals.
- Maintain capability for conducting analysis using rapid, precise and accurate methods.
- Conduct analytical testing related to product trace-backs.
- Maintain chain-of custody where and when needed.
- Determine appropriate movement restrictions for animals, people, equipment, feed, commodities, and conveyances.
- In collaboration with the FDA, and/or the Incident Management Team and the Public Information Officer, prepare information for dissemination to the public, producers, processors and other concerned groups through the Joint Information System or Center.
- CDA will coordinate with CDEM, USDA, Colorado Department of Transportation (CDOT), Colorado State Patrol (CSP) local jurisdictions, and other agencies as needed in enforcing stop movement orders.
- Conduct animal health assessments at the site of the event to determine needs and priorities.
- Prioritize activities and areas of greatest urgency for state response and recovery personnel in the field.
- CDA will coordinate with FDA and provide liaison between other federal, state and local organizations when required.
- CDA will develop protocols for worker protection related to incident-specific health and safety site plans, risk (hazard/exposure) assessments and PPE.
- Direct feed investigations to determine source of feed contamination or hazard.
- Identify contaminated feed and agricultural products that must be destroyed and disposed of or decontaminated.
- Identify and approve, in collaboration with CDPHE, sites for disposal of, contaminated feed, or other items that are contaminated.

## **K. Federal, State, and Local Agencies Roles and Responsibilities**

- Identify and approve, in collaboration with CDPHE, temporary waste disposal sites for effluent from cleaning and disinfecting stations.
- Coordinate with appropriate organizations for the deployment of inspectors and veterinarians for agricultural response and recovery.
- Establish and/or coordinate appropriate regulatory controls.
- In collaboration with the CDA PIO provide advisories and related public information.
- CDA will coordinate with CSP, county and local law enforcement for site security and related issues.
- Notify CDW of any wildlife threat or involvement.

### **SUPPORT AGENCIES**

#### **Local Government**

Since all emergency response begins at the local level, local emergency management officials will be actively involved in the response and will be a key provider of resources for operational missions. Each county has a comprehensive emergency management plan which provides the framework for the jurisdiction's response to emergencies and disasters. Counties, through their assets of County Commissioners, County Extension Offices and their networks, will utilize their resources and provide an additional line of communication with local farmers, industry groups and the community. Additionally, as part of a coordinated response, local law enforcement officers with assistance from Brand Inspectors and Bureau of Animal Protection Agents may:

- Assist in identifying clean transportations corridors' for moving unaffected animal feed and/or livestock safely during an animal feed outbreak incident.
- Assist in the conduct of a criminal investigation
- Provide site security and conflict resolution as needed to ensure the safety of veterinarians, inspectors, and all other responders should any conflicts arise.

#### **State Agencies**

Colorado Division of Emergency Management may:

- Activate the State Emergency Management Plan and SEOC to support CDA.
- Support CDA by providing statewide coordination for logistical support, security, biosecurity, support personnel, procurement of supplies, equipment, vehicles, food, lodging, and administrative support during an feed response and recovery from emergencies. Coordinate with CDA, for the provision of biosecurity training to support agencies and provide biosecurity training to agency personnel designated for operations in the affected area.

Colorado State Patrol (CSP) may:

- Provide law enforcement support and coordination to conduct traffic checkpoints and roadblocks, enforce stop movement orders and secure quarantined areas.
- Coordinate with local law enforcement agencies to support response and recovery with all available resources.

## **K. Federal, State, and Local Agencies Roles and Responsibilities**

Colorado Department of Public Health and Environment may:

- Support public information efforts.
- Consult with CDA and, FDA, USDA regarding bio-security issues related to zoonotic diseases.
- Provide veterinary and epizootiologic support to an CDA emergency.
- Assist and collaborate with CDA on subjects such as feed disposal, cleaning and disinfection and other issues that may influence soil, water, and air quality.
- Liaison with Environmental Protection Agency to address issues that may arise.
- Provide laboratory emergency response and/or surge support.

Colorado Human Services Department may provide or coordinate mental health staff to assist in crisis counseling efforts.

Colorado Division of Wildlife may:

- Provide surveillance in free-ranging wildlife and wildlife in zoos, parks, and other natural areas.
- Survey for and/or dispose of contaminated items and wild animals.
- Conduct wild animal inventories in the area of an event to identify susceptible species.

Colorado Department of Transportation may:

- Provide traffic control and routing assistance, barricades, and road monitoring.
- Provide equipment and operators to assist with feed disposal.

Colorado State University (CSU) may:

- The College of Veterinary Medicine and Biomedical Sciences (CVMBBS) may provide veterinary support and expertise throughout the emergency as requested by CDA.
- Colorado State University Veterinary Diagnostic Laboratory may provide appropriate diagnostic support services as requested by CDA.
- Colorado State University Extension may provide, communication, and liaison between Incident Command, affected industry groups and local communities during emergencies.

### **Federal Agencies**

United States Department of Agriculture (USDA), Food Safety Inspection Service (FSIS)

The FSIS is charged with protecting the Nation's food supply by providing inspectors and veterinarians in meat, poultry, and egg product plants and at ports-of-entry to prevent, detect, and act in response to food safety emergencies. FSIS has developed the infrastructure needed to confront new biosecurity challenges. FSIS may assist state and local authorities in disease eradication activities and/or food-borne illness emergency investigations.

Department of Health and Human Services, Food and Drug Administration (FDA)

One of FDA's mandates is to protect the public health by assuring the safety of our nation's food supply. FDA also has an important role in prevention and control of contaminated animal feed.

## **K. Federal, State, and Local Agencies Roles and Responsibilities**

FDA may assist state and local authorities in disease eradication activities and/or food-borne illness emergency investigations. During a feed incident, the FDA may:

- Undertake investigations to identify implicated products;
- Request an FDA-regulated firm recall implicated or potentially unsafe product;
- FDA can provide a recalling firm guidance and assistance regarding proper recall procedures and monitors the effectiveness of recalls of FDA-regulated products;
- If warranted, exercise administrative detention of the implicated product;
- Issue press information, such as consumer advisories or product trace determinations;
- Coordinate the FERN, a network of state and federal laboratories that are committee to analyzing food/feed samples in the event of a biological, chemical or radiological emergency.

### Department of Health and Human Services, Center for Disease Control and Prevention (CDC):

The CDC is the lead federal agency for conducting public health surveillance and gathering data on food-borne illness, investigating food-borne illnesses and outbreaks, and monitoring the effectiveness of disease prevention and control efforts. CDC also plays an ongoing role in identifying disease prevention strategies and building state and local health department epidemiology, laboratory and environmental health skills to support food-borne disease surveillance and outbreak response. CDC does not regulate food commodities, however, CDC collaborates extensively with the federal food regulatory agencies to protect public health by ensuring the safety of the food supply. During an emergency response, CDC may:

- Providing clinical, epidemiological and public health expertise
- Depending on the nature of the threat, enhance procedures for detecting and analyzing the suspected biological or chemical agents
- Identifying laboratory surge capacity to process an increased volume of clinical or food samples. The LRN, FERN or ICLN may be sources of additional analytical capacity
- Providing confirmatory laboratory testing or characterization for biological threat agents involved in food-borne illnesses
- Collaborating and communicating extensively with the states, FDA and USDA
- Identifying staff to be on continuous alert to assist and possibly be dispatched to a response site
- Issuing health alerts to state health departments and key healthcare provider networks to increase surveillance of new or unusual clusters of illness
- Issuing alert to the broader public health, medical and other relevant constituencies, as needed; and,
- Developing appropriate messages and guidance for the public.

### Federal Bureau of Investigation (FBI)

The FBI is the agency responsible for investigating cases of bio-terrorism or agro-terrorism a part of the mission of a Joint Terrorism Task Force (JTTF). When food animals are the target of

## **K. Federal, State, and Local Agencies Roles and Responsibilities**

a terrorists attack and evidence suggests a foreign animal disease may have been intentionally introduced or threatened, CDA will notify the CIAC who in turn will coordinate activities with the JIFF within the Denver Office of the FBI.

### Environmental Protection Agency (EPA)

The following offices of EPA could be involved with supporting a response to a food emergency: Office of Pesticide Programs, Office of Water, Office of Solid Waste and Emergency Response. The EPA's homeland security activities for food and agriculture include the following:

- Measures to prevent the use of agriculture materials, such as hazardous pesticides and the equipment used in their application, as terrorist weapons
- Measures to protect the security of drinking water and wastewater systems, such as emergency response tools and vulnerability assessments; and,
- Information sharing about the water security

## **L. Biosecurity Recommendations for Industry**

# **American Feed Industry Association Guide to Biosecurity Awareness**

## **Introduction**

In response to potential attacks on the safety of the nation's food supply, the Departments of Agriculture and Health and Human Services have requested that industry leaders involved in animal agriculture assume a leading role in raising biosecurity awareness. Grain, processed ingredients, animal feed, pet food and their delivery vehicles all serve as potential vectors for intentional contamination, resulting in injury to humans and animals.

One should not assume that consumers are a terrorist's sole targets. Terrorists may also cause severe economic hardship and market disruptions by damaging production assets and distribution methods.

The time is right for promoting biosecurity for the feed industry. AFIA offers this publication as a guide to biosecurity awareness. It is not intended as an operational manual and is not a substitute for good manufacturing practices. Instead, this publication is a tool toward strengthening companies' overall feed/food safety plans.

Each employee has a role in assuring the quality of manufactured products. Starting with top management, the message must be conveyed that all employees should remain vigilant in protecting a company's assets and reputation. Consider conducting employee-training meetings using this guide and the related PowerPoint™ presentation, available at [www.afia.org](http://www.afia.org)

In the event of an attack upon its facility, a company should contact law enforcement authorities immediately. AFIA stands ready to assist any company should such an unfortunate event occur. AFIA will also serve as a clearinghouse of information to enable others to quickly protect industry assets. Collectively, AFIA and the industry can help insure the safety of our nation's food supply by continuing to provide safe feed, while maintaining a safe work environment.

## **Threats to Biosecurity**

Certain safe substances may be used to produce unsafe or harmful combinations if used incorrectly or indiscriminately. These include ammonium nitrate or urea fertilizer, concentrated pesticides and animal drugs. Secure and account for such products and report anyone acting suspiciously or wishing to purchase abnormal quantities. Generally, feed and feed ingredients may become adulterated by the following means:

- Biological (bacteria, toxins, viruses, parasites, etc.)
- Chemical (classical chemical warfare agents, such as nerve, blister, blood and choking, and toxic industrial chemicals, such as pesticides, rodenticides and heavy metals)
- Radiological (agents that can be delivered in liquid or solid form)
- Physical (e.g. ferrous and non-ferrous metal, glass and plastic)

Any biosecurity program should anticipate attempts to introduce these agents into the animal feed production and distribution process.

## **L. Biosecurity Recommendations for Industry**

### **Facility Security**

Ensuring the physical security of buildings and grounds is an important step in overall biosecurity. A conscious effort should be taken to assess and control security risks by recognizing and anticipating security issues before they surface.

- Consider using security lighting, perimeter fencing, and controlled gate access. Depending upon the size of the property and type of business, an off-hours security guard may be warranted.
- Use electronic security devices, such as motion detectors, door alarms, video cameras and alarms linked to an off-site security system as effective deterrents.
- Make certain door hardware is of industrial design.
- Install guards on exterior ladders, protecting them from unauthorized use and preventing access to the top of bulk storage tanks. Discharge gates of all bins should be electronically or mechanically secured to prevent unauthorized release.
- Padlock entry and discharge points of exterior liquid tanks (above and below ground) when not in use.
- Provide additional security by employing secured covers over outside receiving pits.
- Lock all vehicles parked outside at night or during non-business hours.
- Secure or park containers inside, whether they are empty or loaded with product.
- Request local law enforcement to patrol company premises on a regular, but unpredictable basis. A facility that “looks” secure will frequently discourage the casual prankster.
- Encourage employees to report suspicious behavior. Employees can assist in protecting the company’s assets and its reputation, and in ensuring uninterrupted operations and service.
- Restrict access to computer process control and data systems, secure on-line communications, and safeguard protection. Store back-ups off-site.
- Emphasize security when in new construction planning and design.

### **Visitor Policy**

All visitors should check in with a designated company representative. This procedure protects against unwanted visitors and helps account for all persons during an emergency.

- Post signs informing visitors where to report.
- Limit access to other areas of the property by designating a specific area for visitor parking.
- Maintain a record of individuals’ names and companies, arrival and departure times, and purposes of the visit.
- Use visitor badges or identification cards.
- Do not allow visitors, including delivery personnel, contract providers and service support, to wander the premises. A company representative should serve as escort at all times.
- Restrict access to key manufacturing areas.



## **L. Biosecurity Recommendations for Industry**

### **Ingredient Integrity**

An important component in feed biosecurity is ensuring that all feed ingredients are safe.

- Purchase only from an approved-list of suppliers.
- Visit new suppliers, request samples and lab analysis, review their quality programs and procedures for positive product identification, their relationships with contract haulers, and product security during transport.
- Label and use in accordance with federal and state regulations only approved ingredients for feed production.
- Have the supplier or transportation company certify that the container is clean before loading. No hazardous materials may be hauled prior to, or in combination with, feed ingredients.
- Secure truck trailers, both bag and bulk, once loaded. In the case of soft-top trailers, measures should be taken to prevent unauthorized persons from accessing and adulterating the shipments.
- Secure rail car hatches and discharge gates. When using seals, record the seal numbers on the bill of lading.
- Upon receipt, verify the seal numbers
- Inspect packaged products for seal tampering.
- Take, inspect for known physical characteristics and retain samples prior to and during unloading.
- Maintain a receiving log for all receipts, including rejected items.

### **Product Integrity**

Protect the integrity of products during production and while being prepared for shipment.

- Sample products and inspect them for known characteristics.
- Generate records sufficient to allow traceability of ingredients through production.

### **Distribution**

Certain precautions should be implemented to further protect product integrity and ensure safe delivery to customers.

- Inspect thoroughly, prior to loading, the bulk container for foreign and/or suspicious material. Confirmation of what was previously hauled is essential. Special cleaning or sequencing procedures may be warranted.
- Verify that all customer pick-up drivers are actually representatives of the customer.
- Inspect visually the product stream to confirm quality and consistency. Take and retain samples.
- Secure all container access and discharge points after loading. If seals are used, document the seal numbers on the shipping papers. Do not leave soft-top trailers unattended.
- Use shipping documents to identify the contents of each compartment, along with an official label for each product.

## **L. Biosecurity Recommendations for Industry**

- In the case of rail shipments, immediately mail or electronically send shipping papers to the customer.
- Maintain a shipping log.
- Implement a bio-sanitation program to prevent the spread of disease from farm-to-farm. Procedures to disinfect vehicles and drivers entering and leaving each delivery point may be dictated by the customer or by federal or state officials.

### **Product Recall**

Every company should have a comprehensive and tested recall program that is specific to its operations and products.

- Identify the hazard and its potential to injure humans and/or animals.
- Notify immediately all locations where the product was shipped. Contact the sellers and ask them to identify and inform all consumers receiving the product if it has already been sold.
- Make provisions for the return of any necessary product.
- Ascertain carefully if returned goods can be remanufactured or must be discarded.
- Notify government agencies and law enforcement, if warranted.
- Assemble an accurate record of what was produced, shipped and later accounted for and/or disposed.
- A 24-hour hotline number represents a responsive method to answer consumer questions.

### **Housekeeping**

A written housekeeping program should be implemented for all areas of the facility, including grounds. The program might include the task, deadline and responsible party. Routine self-inspections and a written report will document performance. A written pesticide and rodenticide program should also be implemented. If some or all applications are conducted by an outside service, the firm should provide documentation of its responsibilities and actions.

### **Employee Selection and Training**

Biosecurity awareness should be instilled in all employees, starting with top management. Everyone must vigilantly monitor the activities of visitors, customers, service providers, and fellow employees.

- Ask applicants for a resume of qualifications and complete a job application.
- Conduct background checks (i.e., previous employers' references, and motor vehicle and police records) to establish a prospective employee's qualifications and demeanor.
- Consider conducting drug and alcohol testing during the final stages of the hiring process, after a current employee injury, and when an employee's fitness for duty is questionable. Check state restrictions prior to introducing a new substance abuse program.
- Institute an employment probationary period (60 – 90 days) to properly evaluate a new employee's work habits.

## **L. Biosecurity Recommendations for Industry**

- Train employees to recognize and report suspicious individuals or abnormal activities, security breaches, suspicious materials or devices, and misplaced equipment.
- Communicate a clear zero tolerance policy for workplace violence and encourage employees to promptly report such incidents.
- Implement policies on appropriate personal protection equipment as dictated by management and required by law.

### **Emergency Response**

During the initial stages of an emergency, some circumstances are difficult to control. Prepare and train all personnel to adequately respond to a crisis as calmly and safely as possible.

- Maintain a current inventory of all hazardous and flammable products.
- Create and post a list of all emergency contacts and information.
- Develop an action plan to respond to the discovery of highly suspicious substances or devices. The plan should provide for evacuating the area, contacting law enforcement, securing the scene and identifying witnesses.
- Generate and publicize an evacuation plan in the case of fires and explosions. This plan should include contacting emergency responders, fighting small fires, disconnecting electrical power and assisting authorities.
- Establish and maintain an up-to-date employee roster and visitor log to facilitate a thorough personnel head count at any appropriate time.
- Conduct evacuation and response drills, monitored periodically by the local fire department.
- Post a site plan depicting escape routes, rendezvous areas, and fire fighting and rescue equipment to provide employees a constant reminder of their assignments.

American Feed Industry Association Guide to Biosecurity Awareness

*AFIA provides this guidance to raise the biosecurity awareness of everyone involved in animal agriculture. Please inform the association immediately if unfortunate situations occur. In turn, AFIA will share appropriate information with others so that the nation's safe and wholesome food supply remains protected.*

**The Biosecurity Awareness Guide was produced with the participation of the Animal Health Institute (AHI); the Center of Veterinary Medicine (CVM)/Food and Drug Administration (FDA); and the National Renderers Association (NRA). AFIA expresses gratitude to these organizations for serving on its biosecurity task force and contributing to the development of this important document.**