



# **Livestock**

## **Escape Prevention and Capture**

### **Planning Guidelines**

**An Essential Guide for Livestock Exhibits at Public Events**

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## Preface

Animals play an important role in American society, and the public continues to have an interest in and fascination with animals of all types. Livestock such as cattle, sheep and horses have, for decades, been a major attraction in fairs, exhibitions, parades and competitions attended by large numbers of people.

This close association between livestock and the general public brings with it a responsibility for public safety. Unpredictable situations can arise when animals are moved from the confines of their home environment to a new location for public display or competition. Therefore, it is essential when hosting a public animal exhibit or event that proper facilities, trained personnel and emergency protocols are in place to provide a safe environment for all.

There are rare circumstances in which public officials may be confronted with an animal that presents an immediate and obvious threat to human life. These uncommon high-risk events require additional education and training of personnel charged with public safety, which is beyond the scope of this document. Additional training programs are under development through the International Animal Welfare Training Institute:  
<http://www.vetmed.ucdavis.edu/iawti/default.cfm>

This document was prepared following broad input from animal scientists, veterinarians, private practitioners, animal production unit managers, and those managing animal events for the public. It is intended to provide introductory guidelines for individuals responsible for managing exhibits in which animals interface with the public. It addresses basic safety considerations regarding facility preparation, personnel training and animal handling methods, including techniques for responding to situations in which animals become loose from containment. In short, this document provides a framework for improving the safety of livestock exhibits and ensuring the continued enjoyment of these types of events.\*

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**\*Disclaimer:** The guidelines presented here are not intended to be the sole considerations for creating a safe environment at public events involving livestock. This is a “living” document to which further additions or modifications may be made in the future. These guidelines provide a framework from which further consideration and actions should be taken by event management to ensure safety around livestock. Additionally, given the diverse environments and circumstances associated with livestock and the public, other approaches for livestock safety, beyond the methods or practices presented here, may be justified. Neither the authors, nor the University of California, assume liability for events that may be associated with implementation of some or all of these guidelines.

## Quick Reference List for a Loose Livestock Incident

Personnel should be educated and trained in understanding the basic principles of animal behavior and how to respond in the event of a loose livestock incident. Some basic principles of responding to such an event are as follows:

- ✓ **Do** restrict the area where the loose animals can travel by immediately closing perimeter gates as soon as possible. The first objective is to contain the animal within the facility.
- ✓ **Do** direct the loose animal to a confined fenced area (pre-identified) and then wait for the animal to calm down. When personnel are prepared and have obtained the necessary equipment, move the animal to a smaller area to load into a transport vehicle.
- ✓ **Do** use the fewest number of people to quietly and slowly move the animals. Animals will become agitated if approached by a large group of people.
- ✓ **Do** allow time for the animals to settle down and then move them when all conditions are suitable.
- ✓ **Do** attempt to keep loose animals in a group, it is a natural behavior for most livestock to stay in a group.
- ⊗ **Don't** allow too many people to get involved or interfere with capture operations as it may subject people to risks and injuries.
- ⊗ **Don't** be in a hurry. Stay calm, move slowly, and do not encourage the animal to flee by chasing them like a predator.
- ⊗ **Don't** turn on sirens or lights if approaching loose livestock.
- ⊗ **Don't** chase cattle or horses or try to move them with cars or vehicles.
- ⊗ **Don't** yell or attempt to act too quickly, which can further scare the loose animal



## Facility Design to Contain Animals

An ounce of prevention is worth a pound of cure. Therefore, every facility intended to contain animals for exhibit should be evaluated to determine whether appropriate construction and design features are incorporated to PREVENT a loose livestock incident. The construction of fences, pens, gates and adjacent structures all contribute to the success of a livestock escape prevention plan.

Physical inspection should be done before livestock arrive to ensure that fences and gates are sound and that the structures can withstand a challenge by livestock. Gates should be manually tested to ensure that latches are secure, and or chained intact.

Animal behavior must be a consideration in the design features of animal facilities. Event managers should anticipate and plan for how livestock will respond to adjacent activities (amusement rides, construction noise, other), vehicle traffic, personnel access, public access and other animal welfare considerations.

A checklist for conducting an evaluation inspection of animal facilities should include the following considerations:

1. Are fencing, alleys and pen design in good condition and appropriate for each livestock species?
2. Are gates and gate latches functional and in good condition?
3. Are latches designed to prevent accidental release caused by livestock?
4. Are gates in proper locations to restrict or direct animal travel through the livestock facility?
5. Are alley floor surfaces in good condition with a nonslip surface, and free of holes, debris, protruding sharp objects and other hazards that may injure the livestock?
6. Are primary fence and secondary fence containment enclosures secure and functional?
7. Is there any permanent or temporary lighting in livestock area to respond to emergencies at night?
8. Are animal feed and bedding conditions suitable and provided as needed to keep livestock from challenging fence barriers to escape and seek better conditions?
9. Is the water system clean and functional to provide animals with continuous access to water to keep livestock hydrated?
10. Are there adequate barriers, fencing or physical barriers between the public and livestock for injury prevention and biosecurity?
11. Identify any adjacent activity (noise or movement) that may cause livestock to react with fear or alarm.

Specific design considerations for enclosures, alleys and pens, fencing and public access are given in more detail in Appendix A.

# Capture Plan

## Herding and Capture Principles

### *Preparation for Capture*

1. Identify the lead and most knowledgeable livestock person to serve as, or assist the Incident Commander and delegate authority to give direction to other responders. Other responders need to agree to follow direction from the Incident Commander. Maintain control of the incident plan to capture animal.
2. Avoid the use of sirens, lights, loud speakers, yelling, fast motion, and other physical actions that provoke the animal.
3. Obtain necessary equipment such as ropes, feed buckets, halters, trailers. The Incident Commander can decide if wranglers on horseback and the use of cattle dogs are necessary.
4. Block off pre-identified expected routes of escape. The goal is to position qualified people on the side of the cattle rather than chasing them, so that when you SLOWLY close in, the cattle will have only one direction to go: the direction that you want them to go. See attached map for specific locations.
5. Call police or authorized personnel who are trained in effective use of firearms for euthanasia of livestock to be available on standby. Qualifications must include knowledge and skill with the technique for single immobilizing shot, along with accepted use of a firearm for euthanasia techniques following American Veterinary Medical Association guidelines.
6. Arrange for livestock transport vehicle to be dispatched to specified location.

### *Animal Handling*

1. Gather animals together in a group if possible before moving them. Isolated animals may become agitated without company of other animals from the herd. Walk a wide circle around the animals and let them gather in a group without putting pressure on them to move. Do not try to move them until they have gathered.
2. Encourage animals to move by slowly approaching them, and stop if it appears the animal is going to run. **Do not make the animal(s) run.** Animals have a “personal space” and when people crowd them, they will flee or run. It is very difficult to herd animals once they start to run. Most breeds work from behind or from the side. If you stand in front to head them off, they will go everyway but where you want them to go, and this action represents a direct challenge to some cattle, and they may charge at that point if they feel threatened. Take time and think about the desired outcomes of your actions.
3. Stay calm to keep the cattle calm. If you break into a run in order to stay close to the cattle, the cattle will likely break into a run as well, and once they have started running

they are not likely to slow down or stop until they have reached a fence or other obstruction that forces them to stop.

4. If the cattle end up next to a fence, don't move in on them directly. Use the fence and develop a plan to get behind and along side to guide them along the fence to where you want them to go. If they start going the wrong way, try to head them off from the side, but don't scare the animal(s). Not all fences deter livestock. Do not rely on barb wire fencing, or low height fencing to stop livestock
5. Contain animals and then make careful preparation for herding into livestock trailers or catch individual animals to lead them back to pens. Contact skilled livestock handlers to actually load and transport animals back to a safe environment. Untrained individuals should not be involved because of potential for serious risk of injury of self and others.
6. Animals that are not broke-to-lead or definitely are aggressive should be handled with extra caution for personal safety.
7. Prepare for action if it appears that capture is not realistic considering all factors such as: type of animal, disposition, public safety, access to highways, etc. In rare circumstances chemical immobilization or lethal action may be necessary if immediate threat to human life/safety is present. Refer to specific protocols conducted by trained individuals.

### ***Special Circumstances—Stampede***

1. When a group of livestock or horses become loose in an unconfined area they may suddenly bolt (run) as a group. This is a very dangerous situation and nothing can be done to stop the animals until they reach a large physical barrier or become fatigued. Responders need to alert those on the premise to seek cover and stay out of the way of the stampeding animals. Once animals calm and settle down they should be slowly guided to an enclosure or alternatively a fence of portable panels should be constructed to confine them in the location where they stopped and individual animal capture or loading attempted.
2. Individual animals may spook and stampede due to unforeseen circumstances, such as when pulling a wagon or even while tied to a fence. Trying to capture a loose horse that is pulling a wagon or dragging a part of a fence is extremely difficult. This is a high risk situation and the animals will ignore the presence of people in front of them until they stop on their own. Do not try to stop or turn such an animal by standing in front of the animal.

### ***Catching Loose Horses***

Capturing loose horses involves many of the approaches used for loose livestock. A few particulars about horse capture after you have secured the primary area and shut gates as described:

1. Horses that are loose are usually scared and can move suddenly and injure people or themselves.

2. Horses are prey animals and any action that resembles being approached by a predator can spook the horse. Move calmly, slowly and speak softly when approaching horses.
3. Pick up a halter or rope and a bucket with grain to entice the loose horse to you. Hold your hand out with food and walk slowly. Shake the bucket a bit so the horse hears the grain in the bucket. The horse may actually follow you and the bucket into a containment area where the horse can be captured.
4. Approach the horse slowly toward their shoulder area while quietly talking to the animal and keep the halter and rope held behind you in one hand. Slowly and calmly place the rope or halter on the horse as instructed or learned through training class.
5. A loose horse may follow another horse that you bring out on a lead line and then be led to a confinement area.
6. If other horses are running around in confined areas they may encourage the loose horse to run. Be careful and stay alert for sudden changes in the horse's movement.

## Summary

- I. Conduct a facility inspection to verify that all containment and housing structures are suitable and in good working condition before placing livestock in the facility. Develop a checklist specific for each facility to include inspection of: primary and secondary containment fences, ramps, terrain (footing), gates, latches and more. Inspect to confirm structures are suitable with adequate strength/size, without sharp/protruding objects, and securely fastened. Use checklist during a physical walk-through as a signed/dated record of inspection.
- II. Develop written containment plans in advance, prepare standard operating procedures specific for each location, identifying local barriers such as gates, buildings, fences, waterways that can be used to direct or stop animal movement. Include requirement for periodic visual inspection according to need and/or predetermined schedule.
- III. Use existing fences, buildings, and natural barriers in your containment plan. Plan ahead to direct animals to a fenced area out of range of threat to people.
- IV. Provide training for first responders including staff, police, animal control services and facility security teams regarding current livestock capture plan.
- V. Maintain access to equipment for temporary fencing, panels, ropes, halters, vehicles, feed, etc.
- VI. Test electronic mass notification system (pager, text message, PA, horn) quarterly and verify effective communication system works with responders and agencies before the exhibit begins.
- VII. Conduct animal catch training drills (include strategy, animal behavior, communication) for all staff before the exhibit begins. During the hiring process, verify training and qualifications of staff for handling different animal species.
- VIII. Pre-arrange jurisdictional authority with local officials and coordinate capture protocols with other agencies.

## **Appendix A Facility Design**

1. Provide primary enclosure with solid pens, stalls or paddocks with latches that cannot be opened by livestock.
2. Provide secondary barriers such as barn gates, alley gates, and perimeter fences to contain animals that escape from pens or stalls.
3. Design alleys and pens with suitable material and construction to handle specific livestock specie. For example, a fence and alley designed for sheep may not be suitable for cattle.
4. Design layout considerations:
  - a. Place unloading/loading area adjacent to pens.
  - b. Use solid fence panels to form a chute next to transport vehicle or design so transport vehicle can be backed into chute so the panels enclose the vehicle leaving no gap or “Daylight” as cattle look for openings in fences.
  - c. Design alleys with adequate number of gates to allow for sorting animals to various pens.
5. Suggested Fencing (varies for specific animal type):
  - a. All fence panels secured to each other with pins or bolts or chain with no slack. The use of bailing wire, bungee cords or rope is not acceptable.
  - b. Match the strength and construction with the type of animal species to be contained.
  - c. Welded pipe panels, 5 feet tall, five rails, connected with metal pins, or bolts or 3/8” link chain, or welded to metal posts. Specifically remove any sharp/protruding objects in pens, fences, stalls, alleys, etc.
  - d. Welded wire panels attached to secure posts (wood or metal) suitable for small livestock.
  - e. Solid panels used in specific areas to discourage escape since cattle look for “Daylight” or gaps in fencing if they are trying to flee a situation.
  - f. Use gates with a heavy duty slide/lock latch or chain with heavy duty snaps
6. Public Access: Design facility to allow for public viewing while also ensuring safety and security. Do not allow public to come into alleys or pens while cattle are being moved.
7. Inspection:
  - a. Conduct daily inspection of facility while feeding and caretaking of animals to make sure fence integrity is intact and all gates and latches work properly.
  - b. Observe animal behavior to identify animals that appear to be agitated or are challenging fence enclosures.

# Appendix B

## Personnel Training

### Personnel Training Topics

Personnel training is the most important aspect of a livestock escape prevention plan. People need to know their jobs, authority, safety techniques, and plans for response to emergency events. Quick and effective response can prevent a minor incident from turning into a major incident. The initial investment in training and prevention programs has a significant benefit compared to the cost and time spent dealing with capturing loose livestock. Prevention planning is necessary since it is too late to close the barn door after the cow has escaped.

### Role of Management Personnel

1. Review facility design and maintenance to minimize the risk for livestock escape.
2. Develop and Implement a Livestock Escape Prevention Plan
3. Develop and Implement Livestock Capture Protocol
4. Manage exhibitor compliance with animal handling protocols.

### Knowledge and Skills Required for Safe Management of Livestock Events

#### *Suggested Training Topics for Personnel Affiliated with Livestock Exhibits:*

1. Animal Behavior: Basic livestock and horse handling covering the principles of herding, assessment, approach, capture, release, leading along with the safety considerations for personnel and animal
2. Unloading/loading livestock from transport vehicles
3. Moving livestock pen to pen
4. Livestock capture protocol
5. Euthanasia of livestock

#### *Additional Training Topics:*

1. Housing and handling bulls and stallions
2. Management of a recumbent animal
3. Freeing cast animals (Trailer and Stalls)

4. Livestock First Aid
5. Immobilization Techniques – tranquilization or humane euthanasia
6. Public Relations involving the animal component
7. Incident Command System

## **Appendix C**

### **Specific Incident Plans**

#### **Livestock Loose Within Exhibit Grounds**

1. If an animal is loose in a barn, close barn gates and perimeter fence gates.
2. Close perimeter gates.
3. Call phone number \_\_\_\_\_ to request additional help if necessary if an escapes from primary enclosure.
4. Set up fence panels or block openings in the perimeter fence according pre-event plan.
5. Use pre-arranged mass communications system such as, cell phone blast text message to notify others about loose animal.
6. Contain cattle in alleys or direct to paddocks or pasture gates. Contain animal until more help arrives to move animal back to pen. Avoid actions to cause animal to run.
7. Position people where there is a possible exit or locations to direct animals to a containment area. Be aware that some animals may charge people when cornered. Back away from animal if it appears the animal is giving signals that they are ready to charge. In fact, if threatened with a charge, find a suitable structure to hide behind to not provoke the animal.
8. Cows and horses are herd animals and sometimes will seek other animals of same species. For example, leading a cow by the loose animal may serve as a method to direct the loose cow/bull back to a pen or to a trailer.

#### **Livestock Loose Off Premises**

1. Notify police to manage traffic control.
2. Prevent animal from access to highways, freeways, and populated areas.
3. Direct personnel to pre-identified locations to block movement of loose animals. Use established method to block path of animal without risk to people.
4. Position people where there is a possible access to freeways or populated areas to direct animals to a containment area. Be aware that some animals may charge people when cornered. Back away from animal if it appears the animal is exhibiting behavior that they are ready to charge. In fact, if threatened with a charge, find a suitable structure to hide behind to not provoke the animal.
5. Avoid chasing the animal. Do not make them run.
6. Allow the animal to stop and calm down if possible. Wait until help arrives.
7. Use people on horseback with cow dogs if available based on decision from the Incident Commander.

## **Appendix D**

### **Animal Immobilization Procedures**

#### **Dart Tranquilization, Chemical Immobilization**

Veterinary tranquilizers work well in a hospital setting where an animal is given a drug and then placed in quiet area or a quiet room until the drug takes effect. There is a misconception by the general public that the use of a tranquilizer gun on an escaped large animal will rapidly bring that animal under control. Some drugs used for wildlife capture do work within a minute, but they are Class 1 DEA controlled drugs and pose a high risk to the people handling those drugs and can inadvertently leave lethal residues in the environment that can cause respiratory arrest and death of people coming in contact with the residues

The general veterinary tranquilizers are slow-acting, requiring up to 15-45 minutes to act when given intramuscularly. Thus, the use of a tranquilizer on a loose cow or horse is generally not indicated as a first action due to the length of time required for tranquilizers to take effect and the increased dosage needed in an agitated bovine. Agitated animals, especially cattle may become more dangerous until the tranquilizer causes them to become recumbent.

Tranquilizing a cow or bull is preferred in an enclosure so that the drugged animal does not become an even greater risk to the public before the drug takes effect.

#### **Gunshot Immobilization Procedure**

Lethal gunshot is used only when all other means to capture the animal have been attempted or rejected and the following conditions exist:

1. Immediate threat to human life
2. Apparent entry to freeway or airport
3. The animal is severely injured with little chance for recovery

Call police or authorized personnel who are trained in the effective use of firearms for euthanasia of livestock to be available on standby. Qualifications must include knowledge and skill with the technique for single kill shot, along with knowledge of American Veterinary Medical Association guidelines for accepted use of a firearm for euthanasia.

## **Appendix E**

### **Map of Buildings, Grounds and Fences**

Insert drawings or local aerial photo or map of area with fences, gates, barriers, high risk areas, and other key information identified on the map.

## **Appendix F**

### **Map of Surrounding Area (5-Mile Radius)**

Insert local aerial photo or map of area with fences, gates, barriers, high risk areas, and other key information identified on the map. Identify possible capture sites on the map.