



Wyoming Game and Fish Department Deer Capture and Handling Guidelines



2022

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INTRODUCTION

Mule deer (*Odocoileus hemionus*) and white-tailed deer (*Odocoileus virginianus*) are commonly captured by the Wyoming Game and Fish Department (the Department) and by researchers permitted through the Wyoming Game and Fish Commission's (the Commission) Chapter 33 regulations to facilitate management, monitoring, and research. These guidelines can be used as a reference and should be updated as new techniques and information become available. A description of capture, handling, injury, and euthanasia procedures are described below.

Objectives

- 1) Ensure the safety of all humans in the immediate vicinity of a capture site.
- 2) Ensure the humane and safe handling of deer captured for research, monitoring, and/or management purposes.
- 3) Ensure compliance with Chapter 33 regulations.

Controlling Statute and Policy

Controlling Statute: According to Wyoming Statute 23-1-302(a)(vii), The Wyoming Game and Fish Commission is directed and empowered to direct the capture of any of the wildlife of Wyoming in localities where species are abundant and to transport and distribute any wildlife as in the judgment of the Wyoming Game and Fish Commission is for the best interest of Wyoming.

Controlling Policy: Wyoming Game and Fish Commission Policy VII S (Wildlife Capture / Propagation / Transportation) September 6, 2007, in part, states: The Commission hereby assigns the above-mentioned responsibilities for implementation to the Department. If, in the opinion of the Department, an intended action may be of significant public interest, the Department is directed to notify the Commission member in whose jurisdiction the intended action would occur. If, after being fully informed of the intended action, that Commission member has concern about the proposed recommendation, it will be brought to the full Commission in open session before the intended action occurs. Otherwise, the Department may proceed in accordance with the other provisions of this policy. The Department shall provide the Commission with regular reports summarizing actions taken. To the extent that any action pursuant to the above-mentioned responsibilities may be more specifically addressed in another Commission policy, the more specific policy shall control.

Department Personnel Requirements

Personnel conducting chemical immobilization shall be educated in the safe handling of drugs, their anticipated effects on the target animal, and emergency human treatment if accidental exposure occurs. Personnel chemically immobilizing deer shall have a current wildlife handling and chemical immobilization certification provided by the Department. All personnel must be recertified every five years. Personnel involved in capture shall have appropriate field experience capturing and handling deer or be paired with experienced personnel. Personnel using firearms/captive bolt for euthanasia shall be trained in the proper use of firearms/captive bolt, including proper shot/bolt placement for humane euthanasia. Personnel involved in the capture and handling of deer shall be fully briefed and trained in methods to minimize physical stress on deer during capture operations.

Equipment

Carrying tarps, sleds, or stretchers: Specialized tarps with handles, sleds, or stretchers reduce risk of injury to animals and personnel. They also allow for safe movement of animals while maintaining appropriate body position to reduce the likelihood of regurgitation. These should be utilized whenever moving captured animals, regardless of capture method.

Blindfolds: Blindfolds help reduce stress and protect the eyes of captured animals during handling. They should be made of non-abrasive material and sized appropriately to cover both eyes of the animal. Commercially made blindfolds with straps that fit securely must be used for animals transported by helicopter. Care must be taken to ensure that straps are unfastened prior to release. Knit neck gaitors are effective blindfolds for animals that are not being transported via helicopter and will easily slide off in case of an accidental release. A clean blindfold must be available for every deer captured.

Hobbles: Hobbles typically consist of a single strap of leather, nylon, or plastic with a buckle. Two straps are required per animal, one on each side of the animal to secure the front and rear leg together. Other types of hobbles may be available that allow one hobble to secure all legs.

Tables: In operations involving a large number of captured animals and a large handling crew, tables can provide a safe workspace that allows for easy movement between animals to facilitate processing. Tables should be cleaned and sanitized between each animal.

Digital Rectal Thermometers: Thermometers shall be available to monitor body temperature of captured deer.

Oxygen: Tanks of oxygen (with regulators), nasal catheters and nasal cannulas should be available as needed for deer with elevated stress and having breathing difficulties.

Water Containers: Adequate quantities of water should be available at all planned captures for cooling animals.

Isopropyl Alcohol (70%): Adequate quantities of isopropyl alcohol should be available at all planned captures for cooling animals. Applying alcohol on groin/axilla and hooves can be used to help cool an animal if snow or water are not immediately available.

Capture Form: Capture forms should be used to document samples and information collected at each capture. These forms are tailored to each capture event to provide sampling checklists and information specific to the needs of each individual capture. At a minimum, capture forms should include the information required for Chapter 33 permit reporting (capture location, species, sex, age, transmitter frequency, date collar activated, and ear tag color/number).

Permits: Personnel and researchers involved in the capture and handling of deer for the purpose of scientific research shall be in possession of a valid Chapter 33 permit.

CAPTURE AND HANDLING CONSIDERATIONS

During deer captures, all efforts will be made to ensure the safety and survival of captured individual deer. Depending upon the goals of the research or management project, the total number of animals captured should not be above the target number needed to obtain the necessary data or management outcome.

In addition to animal safety, all efforts will be made to ensure the safety of personnel, volunteers, spectators, and media. Capture operations can be hazardous to humans. All capture operations should include basic safety briefings and training on how to safely handle animals. Safety equipment will be made available for capture crew if there is a need. Members of the public may be used as volunteer help if approved by the Department Regional Supervisor. The Department's volunteer policy must be followed in these events. The capture project lead should provide volunteers and media a verbal orientation to the capture site, including areas that are prohibited, any staging area rules, and basic capture project information.

Deer captures should generally be conducted between December 1 and March 15. Management/research needs, weather, and capture crew scheduling may dictate captures outside of these dates. If a capture outside these dates is anticipated, personnel should consult with the Department Veterinarian. Planned (i.e., non-emergency) capture events should be avoided when adverse weather conditions threaten the survival or well-being of captured animals unless precautions can be taken to mitigate the risks.

METHODS OF CAPTURE

Net Gun

Helicopter net gunning has become the standard approach for capturing deer in Wyoming, and under most circumstances, the preferred, most efficient and safest method. Helicopter net gunning shall be contracted to a private vendor. Department personnel are responsible for assuring compliance with the Low Altitude aircraft operation standards, procedures and safety policy. While capture crews typically have their own capture equipment, there can be concerns over disease transmission via capture equipment. To reduce concerns over disease transmission via capture equipment, equipment should be cleaned and sanitized between each use.

Net gunning will be done at specified locations. Depending on project design, animals may be either processed and released directly at the site of capture, ferried to a staging area for processing and released (or loaded into a trailer for translocation) at the staging area, or ferried to a staging area for processing and then ferried back to the capture location for release. Animals handled at the site of capture will be hobbled and blindfolded. Department personnel must carefully consider all options to determine the best method for processing and release given the capture scenario.

If animals are to be slung beneath the helicopter for transfer, field personnel may staff a nearby staging area during the operation and be responsible for processing animals. Staging areas may change over the duration of the capture to remain close to the net gunning operation (typically less than three miles). Each staging area should establish a helicopter drop zone clear of obstructions for deposit of captured animals. Two-way radio contact between Department personnel at the staging area and the helicopter crew shall be maintained throughout the capture process in case problems need to be resolved.

The distance from staging areas and capture locations should be carefully considered. If these distances are nearing three miles or travel barriers occur, personnel and researchers should consider returning deer to capture locations after processing. Consideration should be given to keeping family groups together.

Animal handling shall be timed and recorded. Procedures/sampling requiring prolonged handling and/or ferry times (>20 minutes) should consider administration of tranquilizing agents to reduce stress. If animals are partially sedated, it should be done so that they can still lift their head to protect their airway. Invasive procedures (surgical implants, biopsies, etc.) require comprehensive pain management recommendations from the Department Veterinarian.

Capture Conditions: Unless necessitated by an emergency or dictated by management needs, capture operations should be halted if ambient temperatures fall below -4°F or exceed 60°F for ≥0.5 hour. Temperature is of particular concern with net gun captures, and animals can easily become overheated due to long pursuit times, multiple pursuits, and/or high ambient temperatures. Even at temperatures below 60°F, careful consideration of temperature is warranted. If temperatures are below -4°F, capture conditions may become challenging for personnel and equipment to operate effectively. Deer captures should not occur under -10°F and deer should not be slung under a helicopter when temperatures are below -4°F. If captures occur when it is over 60°F, captures should be limited, animal body temperatures need to be continuously monitored, water must be available to cool animals, and only drugs that can be reversed should be used. If multiple animals have temperatures greater than 105°F, then re-evaluation of capture conditions should be made and either protocols should be adjusted or capture operations should cease.

Pursuit Time: Deer should not be pursued for more than ten minutes total (group and individual chase times combined). Typically, once a deer is selected from the group it is pursued until the net-gunner can fire a net over the deer (typically under one minute). In order to avoid overexertion and capture myopathy, individual animal chase times should not exceed three minutes, or until active panting is observed. Chase time should be recorded and reported by a helicopter crew member for each animal. If ambient temperatures are high, chase times may need to be shortened. Chases will be aborted if signs of excessive exertion (e.g., open-mouthed breathing, stumbling) are noticed, or if a deer appears headed for a potentially dangerous situation (e.g., fence, road, etc.).

No-Fly Zones: Deer captures will take place on public land or private land approved by the landowner. Capture crews will make an effort to avoid roads and man-made structures.

Chemical Immobilization

Chemical capture is best suited for situations where small numbers of deer must be captured, other methods of capture are unavailable, or conditions are conducive to easy access to animals for darting. Darting will be accomplished via ground approaches, in either a slow moving or stationary vehicle, from a blind or on foot.

Deer may be chemically immobilized by using BAM (Butorphanol, Azaperone, Medetomidine) or NalMedA (Nalbuphine, Azaperone, Medetomidine) delivered intramuscularly. When appropriate, antagonists will be used to reverse anesthetic effects after handling and sampling. Other drug combinations may be considered at the discretion of the Department Veterinarian. It is imperative that before finalizing animal care and use committee applications the Department Veterinarian is consulted on dosage and drugs that will be used for captures.

Any deer chemically immobilized, or that a pharmaceutical agent has been used on, must be ear-tagged with a "Call Before Eating" tag issued by Department Veterinary Services.

Capture Conditions: Unless necessitated by an emergency or dictated by management needs, capture operations shall cease if ambient temperature falls below -4°F or rises above 60°F for ≥0.5 hour, or if light is insufficient to allow darted animals to be monitored and followed adequately. Shade and water should be provided in cases where warmer weather darting has occurred.

At least one individual directly involved in darting activities shall have extensive field experience with deer capture, handling, and immobilization techniques and have completed the Department's chemical immobilization course. Approved methods of drug delivery include hand syringe, blowpipes, pole syringes, and powered dart projection systems (e.g., air or CO₂ pressurized systems). Every effort shall be made to ensure that all fired darts are collected and properly discarded.

Drop-Net

Baited drop nets can be an effective and safe technique for capturing deer, especially in populated areas where other capture methods might not be feasible. All debris shall be cleared from an area large enough to ensure that the net will rest flat on the ground and to prevent injury to captured animals. All field assistants shall be instructed on procedures for minimizing stress and injury to the animals. Specifically, training will include how to approach netted animals, untangle and free animals from the net, and how to safely restrain the animals. Field assistants shall also be instructed on safety

procedures when working in and around the drop net to avoid any potential injuries to humans (e.g. avoid running on the net, don't cut the net, and watch out for t-posts and tie-downs).

Sufficient manpower, minimum of 1.5–2 handlers per animal, is needed to assure that all deer captured in a single net drop can be safely and quickly handled and removed from the net. Immediately after dropping the net, animals shall be manually restrained, blindfolded, and hobbled. Blindfolds used during drop net captures should not be fastened over the head. It is recommended that knit gaiters or watch caps with the tops cut off are used for these captures. These blindfolds can freely slip off a deer's head if accidental release occurs. Animals shall be kept sternal if possible and allowed to breathe/pant freely. Restraint should avoid compression on the neck and of the gastrointestinal tract or pelvis and handlers should not lay or sit on animals. Animals located at the edges of the net should be processed first, working towards the center of the net. Deer should be processed as quickly and quietly as possible to minimize capture myopathy, bloating, and overheating. Any animal showing signs of distress shall be released immediately, or as quickly as possible.

All deer shall be moved away from the net prior to release. Stretchers or tarps will minimize injury risks to the animals while being carried and ensure that animals are a safe distance from the net and other personnel when released. Deer should be positioned facing away from other restrained deer being processed and facing towards escape cover. Once the hobbles are removed, the blindfold shall be pulled off and the animal can be released.

Animal handling shall be timed and recorded. Drop net efforts expected to capture large numbers of animals with extended restraint and processing time (greater than 30 minutes) should consider administration of tranquilizing agents to reduce stress.

Other Methods

Other capture methods such as corral traps, clover traps, and drive nets have been described for deer capture. These methods are not traditionally used in Wyoming; however, they may be considered under select circumstances. If other capture methods are utilized, careful review of literature and consultation with the Department Veterinarian is required to develop an appropriate plan.

ANIMAL CARE AND HANDLING

Captured animals shall be handled in a safe and humane manner. At least one handler shall remain with the animal at all times during handling. Regardless of capture method, captured animals shall be immediately blindfolded and restrained. Deer may be hobbled as needed to facilitate manual restraint and safe handling. Once the animal is safely restrained, an initial evaluation of safety, position, and general status of the captured animal shall be conducted along with a brief physical exam to inspect for injuries. Monitoring of body temperature via rectal thermometer and visual monitoring of respirations should be conducted on all captured deer. Deer that have been chemically immobilized and handled for greater than ten minutes should have temperature and respirations monitored every five to ten minutes, and artificial tears applied to the eyes.

Loud noises and outside stimuli shall be minimized. Deer are extremely sensitive to external stimuli (including noise and abrupt movement). All noise shall be minimized during capture and handling to reduce undue stress to the animals. The safety of the animal will be monitored at all times. Deer shall be positioned on their sternum (sternal recumbency) whenever possible, with their head and legs properly controlled.

All efforts should be made to make animal handling quick and low stress. Limiting the time of handling is important to animal safety and the most effective treatment for most complications caused by handling is to release the animal. Unnecessary extra steps in capture and handling should be avoided.

Managing Body Temperature

If rectal temperature exceeds 104°F, water or alcohol shall be applied to the neck, axillary region, and groin to facilitate cooling. If excessive body temperature exists, expedited release of the animal should be considered. Rectal temperatures exceeding 106°F are considered critical and the animal should be cooled via external cooling, if drugs have been administered they should be reversed, and the animal should be released immediately. If multiple animals have temperatures above 105°F or are in obvious heat stress (open mouth breathing), ambient temperatures may be too high for safe capture and capture conditions should be reassessed. Administration of intravenous medications (flunixin meglumine), may also help with decreasing inflammation and benefit animals that have overheated, but this administration must be done only by trained personnel and with approval of the Department Veterinarian.

Managing Respiration

Respiratory rates should be at least six to eight breaths per minute. Animals showing signs of poor ventilation, such as low respiratory rate, shallow respiration, or discolored mucous membranes, should be repositioned to assure an adequate airway is present, then examined for bloat. Further care includes stimulation of the animal, such as knuckling, rocking, or repositioning the animal. Stimulation with a needle into the acupuncture point located on the nasal philtrum below the nostrils can help to stimulate respiration. If respiration is still inadequate and the animal has been chemically immobilized, immediate reversal of immobilizing agents is recommended. Expedited release of the animal should be considered. When available, oxygen supplementation via nasal cannula may be administered in chemically immobilized deer. If trained personnel are present and there is approval from the Department Veterinarian, administration of medications (doxapram) may assist with breathing.

Managing Bloat

Bloat is distension of the rumen caused by a build-up of gas. This is most often seen in chemically immobilized animals where immobilizing agents reduce motility of the gastrointestinal system. Bloat can still occur in non-immobilized animals where positioning of the animal leads to a functional inability to release gas or if the animal was captured over bait and rich feed, along with warm temperatures, causing an excess of gas production. If bloat is due to positioning of the animal, repositioning the animal onto its sternum and gently rocking the animal back and forth may help relieve the bloat. Bloat is most effectively relieved by placement of a stomach tube by trained personnel. If personnel are not trained in placement of a stomach tube, and repositioning of the animal is unsuccessful, reversal of immobilizing agents and/or release of the animal is recommended.

Injuries and Euthanasia

Injuries and mortalities are hazards of any animal capture procedure. All of the methods described have been safely used for deer capture. Minor injuries should be treated topically with appropriate medication under an established veterinary-client-patient relationship. If an animal is seriously injured (e.g. fractured or broken appendage, vertebrae, pelvis, or jaw, severe dislocation, laceration, or any other condition that would compromise survival or cause chronic pain/distress) then the animal should be humanely euthanized (see Figure 1). Death should be confirmed by looking for a lack of response to corneal contact, lack of respiration, and absence of a heartbeat.

Lameness Score Guide:

Score 0 - Normal gait.

Score 1 - Mild: Walks easily, readily, bears full weight on foot and limb but has an observable gait alteration, stands on all four limbs, line of back bone normal.

Score 2 - Moderate: Reluctant to bear weight but does use the limb to ambulate, short weight bearing phase of stride, rests the affected limb when standing, increased periods of recumbency, may see arching to back bone.

Score 3 - Severe: Reluctant to stand, refuses to walk without stimulus, non-weight bearing on affected limb, "hops" over limb rather than weight bear, does not use limb when standing and lies down most of the time, back bone arched.

Score 4 - Catastrophic: Recumbent, unable to rise.

Using drugs for immobilization can contribute to a gait alteration, which is associated with drugs wearing off, and does not necessarily indicate a fracture/injured limb.

Any released animals that have a lameness score of 3-4 should be euthanized.

Figure 1. Differentiating Between Minor and Serious Injuries (excerpt from 2020 Guide to Severe Injury Protocol memo)

Approved Methods of Euthanasia:

- Gunshot to the head or neck with a ≥ 0.22 caliber magnum rifle or pistol. Human safety must be assured before discharging a firearm.
- Penetrating captive bolt – with extended bolt. It is acceptable to use penetrating captive bolt alone without sedation to immediately eliminate suffering.
- Potassium chloride (KCl) via intravenous or intracardiac injection. Animals must be heavily sedated prior to administration of KCl.
- Sodium pentobarbital (i.e., Euthasol) via intracardiac (if chemically immobilized), intravenous, or intraperitoneal injection.

Animals humanely dispatched via sodium pentobarbital or administered any immobilizing agents shall not be donated for consumption or left in the field where scavenging may occur. These carcasses should be brought to an approved landfill or incinerated.

MORTALITIES

Handling deer has inherent risks and while unfortunate, mortalities can occur. All mortalities that occur during a capture operation must be immediately reported to the Department Regional Wildlife Management Coordinator, or their designee, to determine whether capture operations should continue or need to be modified. If two mortalities occur during a single capture operation, the operation must be temporarily suspended,

including landing of the helicopter crew, to allow all parties to review capture and handling procedures and determine whether modifications are necessary. If it is determined that operations can safely continue, then the capture may resume the same day. If operations cannot safely continue, then the Department Regional Wildlife Management Coordinator, or their designee, retains the authority to cease capture operations either permanently or until capture/handling procedures or environmental conditions are determined to be adequate.

Prior to capture, the project lead should coordinate with the Department's Wildlife Health Laboratory to develop a plan for necropsy or collection of biological samples if needed in the event of a capture mortality.

COLLARING

Recommended size adjustment ranges for radio collars are 13-19 inches for does and 15-25 inches for bucks. The recommended device/collar mass proportionate to body mass by the American Society of Mammalogists is <5–10%. Radio collars should be fitted appropriately to avoid abrasions, excessive hair loss, or irritation as animals raise and lower their heads. Collars should be fit, corresponding with season and condition, and sized about midway between the shoulders and the base of the head. For yearling, two and three-year old bucks collars should fit more loosely to accommodate growth. Collars used on bucks must be expandable to accommodate neck swelling during the rut. At least one individual directly involved in a collaring effort should have field experience fitting radio collars on deer. Yearling females are similar enough to adults that the same collar size can apply for this age class.

Deer can be long-lived, yet collar battery life is rarely more than five years. Thus, drop off mechanisms should be incorporated into collar design. If drop off mechanisms are not used, project leads should recapture collared animals at the end of a study to remove collars.

VAGINAL IMPLANT TRANSMITTERS

Specific management and research questions may necessitate the capture of deer neonates. The most effective technique for capturing neonates from radio collared adult female deer is use of vaginal implant transmitters (VITs). The use of VITs is considered an invasive procedure per Chapter 33 regulations and should only be done by a veterinarian or other properly trained personnel.

SAMPLING

Managers should contact Department Veterinary Services prior to the capture effort to determine the samples required and the appropriate protocols. Department Veterinary Services may provide or help arrange sampling kits. Regardless of samples required and collected, handling crews shall be as efficient as possible to minimize animal processing times.

Invasive procedures (all procedures, carried out with or without instruments that break the surface of the skin, mucosal barrier, or physically enter the body, including contact with an internal body cavity beyond a natural or artificial body orifice, such as surgical implants, biopsies, etc.) require comprehensive pain management recommendations from a Department Veterinarian.

Tissue sampling for CWD detection will be selected based on the animal's age, project, objective and need. Approval will be given based on the regional coordinator and Department veterinarian. In some cases, personnel will need additional training - which can occur through the Department Veterinarian and veterinary services unit.

TRANSPORT

Transporting deer for the purpose of translocation is not currently being conducted by Department personnel. In the rare occasion the Department considers a situation that would require ground transportation for captured deer, Wildlife Division Administration should be consulted.

RELEASE

Once processing is complete, deer will be released or transported back to the capture site. The blindfold shall be unclipped or unfastened before restraints are removed to eliminate the possibility of releasing a blindfolded animal. The behavior of the released animal shall be closely monitored for any signs of abnormality associated with the capture, restraint, and sampling. Where used, immobilization agents will be antagonized according to established dosing protocols.

Every effort should be made to reduce or eliminate stressors to deer during the release process. The number of observers should be kept to a minimum, and those present should be concealed behind blinds or visual barriers to reduce stress to released deer. Observers should be confined to an area behind the release vehicle or trailer to allow

deer free escape. Upon release, deer will be observed at a distance to detect any injuries. If there is an injury that meets euthanasia criteria, the animal will be euthanized according to guidelines described above.

During release, it is important to be aware of potential dangers to the animal. Fences, roads, water, and cliffs in an area can be dangerous to disoriented animals. Position the animal and all crew members to give the animal the best chance at an open and safe escape.

RECAPTURES

Recapturing collared deer more than one time per calendar should be carefully considered and based on specific research/management needs.

POST CAPTURE MONITORING

If the deer are in good condition and leave the capture location, GPS, aerial or ground monitoring will be used to follow up on condition. All animals should be monitored at least once within 14 days of capture. An attempt should be made to investigate mortalities for cause of death in all cases, but particularly within the first 14 days. If the cause of death is not evident and the carcass is not too remote, the carcass could be recovered for necropsy. If the carcass cannot be brought in, field personnel will check for physical injuries and capture myopathy and collect samples as directed by the Department's Wildlife Health Laboratory. Any mortalities that might be associated with the capture process will be documented and made available for future reference.

DISINFECTION OF CAPTURE EQUIPMENT

The potential for disease transmission via capture equipment must be carefully considered. All equipment used for capture including nets, ear tag applicators, mouth gags, blindfolds, carrying bags, tarps, hobbles, and sampling equipment should be washed thoroughly with soap and water to remove all debris and allowed to dry between capture operations. Needles for blood sampling and gloves used for fecal sampling should be used only once then properly discarded.

Prior to each use, all equipment shall be cleaned and sanitized to minimize potential for disease transmission. Tarps, nets, blindfolds from hunt areas with CWD positive animals should be disinfected after each use, but also should not be used in non-CWD detected hunt areas. Equipment shall be disinfected with 40% bleach solution, or other

disinfecting agents appropriate for prions. Any equipment that comes into contact with mucous membranes must be disinfected between each animal.

To avoid disease transmission within a capture operation, equipment that comes into contact with mucous membranes of the animal, such as mouth gags, thermometers, and swab extenders, should be cleaned and disinfected between each individual deer. The best method is to wipe the item down to clear any debris and then soak in a disinfectant, such as bleach, a quaternary ammonium disinfectant, Lysol® Disinfectant concentrate/spray, or an oxidizing agent. Digital thermometers may not be waterproof and thorough cleaning with wet wipes or a disinfectant without soaking is appropriate. Small scale captures or captures in remote areas may utilize antibacterial wet wipes for cleaning equipment between animals. Items, such as blindfolds, that are likely to have mucosal contact should not be reused between animals. Enough blindfolds should be available to provide a clean blindfold for each animal.

To reduce concerns over disease transmission via capture equipment, purchase and use of agency owned nets, blindfolds, handling bags, and hobbles should be considered. It may be appropriate to have a “set” of these items for each herd unit.