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ANIMAL HEALTH ADVISORY

Field Euthanasia of Livestock via Gunshot

(8 May 2017)

This Advisory outlines major points of field euthanasia of livestock via gunshot. More details may be found on Iowa State University's website: <https://vetmed.iastate.edu/HumaneEuthanasia> (See page 2 for diagrams of bullet placement in the head.)

Be aware that euthanizing an animal can be stressful. If an animal cannot survive its injuries/disease, then proper euthanasia will relieve its suffering. If an animal is posing a significant human threat, then public health must be protected. Proper technique will minimize discomfort to the animal during the euthanasia process.

Confirmation of death is important. Verify: lack of pulse, breathing, and corneal reflex in combination with rigor mortis. *Always take precautions to prevent inadvertent injury to others:* For straight-on head shots, aim so the bullet stays within the animal's body; for shots where the bullet will likely exit the animal, be certain of what/who is down field.

Down or Stationary Animals

Preferred target is the head. Blunt force trauma is not acceptable.

- *Young or small livestock (sheep/goats):* .22-caliber long-rifle solid-point bullet by pistol or rifle
- *Adult bulls:* .38-caliber or larger; shotgun 12-, 16-, and 20-gauge with slug
- *Adult cows, horses, elk:* 9 mm or larger; shotgun 12-, 16-, and 20-gauge with slug; or #2, 4, or 6 size birdshot

Technique:

- *Pistol or rifle:* Firearm muzzle should be within 2 to 3 feet of the animal; do not place the muzzle against the head. Rifles are capable of having higher muzzle energies than pistols and are preferred when the animal must be shot from a distance.
- *Shotgun:* Muzzle should be within 1 to 2 yards of the head; do not place the muzzle against the head. If bird shot is used, distance from the head should be 1 to 2 feet to minimize ricochet and scatter pattern. Do **not** use .410 and 28-gauge shotguns on larger animals, adult cattle in particular.

For Mobile Animals

Preferred target is the head, other options include the neck (spine shot) or lower front rib cage just behind the elbow (heart shot). Bullet caliber and firearms same as listed above, though a rifle will likely offer the most accurate placement if significant distance is between the shooter and the animal.

Indications for Euthanasia*

Euthanasia maybe indicated by a number of situations/conditions, including, but not limited to:

- Fractures of legs, hip, or spine that are not repairable;
- Emergency medical conditions that result in excruciating pain that cannot be relieved by treatment (e.g., terminal colic in horses, or trauma associated with highway accidents);

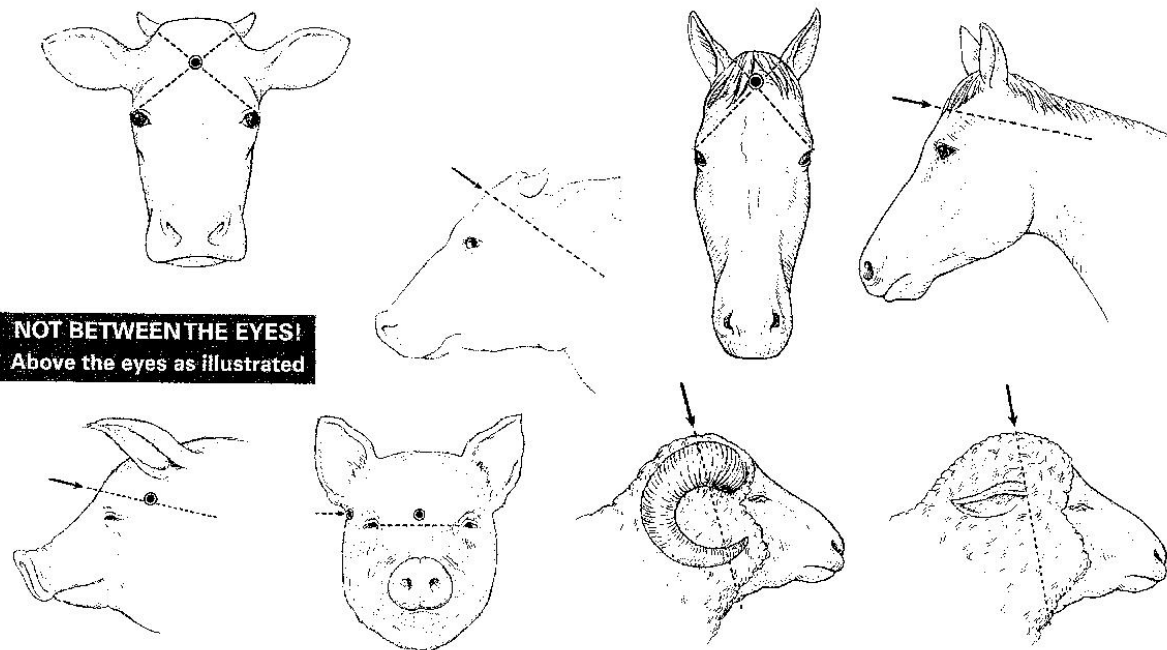
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- Emaciation and/or debilitation from disease or injury that may result in an animal being too weak to be transported;
- Paralysis from traumatic injuries or disease that result in immobility;
- Advanced eye disease (e.g., lymphoma or cancer eye in cattle); or
- Disease conditions for which treatment does not exist or is cost-prohibitive.

NOTE: Rabies-suspect animals: DO NOT SHOOT IN THE HEAD, consult with a local veterinarian on options.
(*From *Procedures for the Humane Euthanasia of Sick, Injured and/or Debilitated Livestock*, Iowa State University)

Anatomical Sites for Livestock Euthanasia



Graphic Source: Iowa State University- University Extension, 2012
<http://vetmed.iastate.edu/HumaneEuthanasia>