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# BQA – Proper Euthanasia for Cattle

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This is abbreviated and adapted, with permission, from “Understanding Euthanasia on the Farm,” originally printed in the Western Beef Resource Committee Cattle Producer’s Handbook, 4<sup>th</sup> edition, by G.W. Brumbaugh, J.J. England, and C.A. Hinds

## Key Points

### Proper euthanasia:

- Comes from a desire to do what’s best for the animal
- Should be performed as humanely as possible
- Requires proper training
- Requires proper disposal of animal remains



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THE TERM EUTHANASIA, derived from Greek terms, literally means “good death.” Termination of an animal’s life should be taken seriously and done in the most humane manner possible. Individuals performing euthanasia must be properly trained. Training should cover safety for humans and animals, proper techniques, regulatory requirements, and proper disposal.

The decision to euthanize should come out of a desire to do what is best for the animal. This decision should be made when an animal no longer functions or behaves in a natural manner, treatment options have been exhausted, and prolonged living will cause the animal to suffer.

Once the decision to euthanize has been made, it should be performed as humanely as possible. It may not be possible to completely eliminate all associated pain, but every effort should be made to minimize the pain, distress, and adverse effects to the animal. This is most likely to be achieved when one has respect for the best interests of the animal.

Acceptable methods of euthanasia will consistently produce death when used alone. The chosen method should induce a rapid loss of consciousness; minimize pain and stress; and result in loss of brain, heart, and lung function.

The most commonly acceptable method used for euthanizing cattle on-farm is a gunshot; however, a penetrating captive bolt can also be used. These methods cause a destruction of brain tissue which results in death.

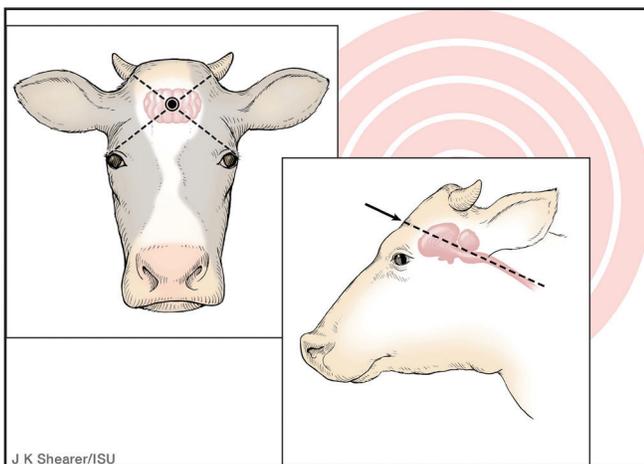
It is not acceptable to euthanize cattle with manually applied blunt-force trauma to the head, by injection of non-labeled chemicals, by injection of air into the circulatory system, by electrocution, or by drowning.

Important factors when using a firearm include caliber, projectile type, distance from the animal, accuracy of projectile placement, and age and sex of the animal.

Handguns, rifles, and shotguns are all acceptable firearms. The choice of which to use will depend on the distance from the animal at which it will be used. Recommended distance is 1 to 3 feet. Recommended calibers range from .22 to .45.

For calves, .22 long rifle shells are generally adequate. Mature animals typically have more dense bone and thus require the use of .22 magnum or larger calibers. Solid-point bullets are recommended over hollow-points. If shotguns are used, 20, 16, and 12 are the recommended gauges. They should be used with slugs or birdshot that is number 6 or larger. You should be prepared for a follow-up gunshot if necessary.

The recommended placement of the gunshot or captive bolt is the middle of the forehead. This location can be determined by drawing an imaginary line from the outside corner of each eye to the center of the base of the opposite horn or equivalent position on polled animals (Figure 1). Placement of the shot should be at the intersection of these two lines. The firearm or captive bolt should be perpendicular to the skull at the point of entry.



**Figure 1.** Recommended placement of gunshot or captive bolt for proper euthanasia of cattle. <http://vetmed.iastate.edu/HumaneEuthanasia>. Used with permission from Dr. Leslie Shearer and Dr. Jan Shearer.

When an animal is rendered unconscious by a gunshot or captive bolt it will immediately collapse, often exhibit brief spasms and uncoordinated movement of hind limbs, and cease rhythmic breathing. Additionally, there will be a lack of vocalization, glazed or glassy eyes, and absence of eye reflexes. If a corneal reflex is observed, the animal is likely conscious and should receive a follow-up gunshot or captive bolt.

Death should be confirmed prior to disposal of the animal by more than one criteria. Lack of pulse, stopped breathing, no corneal reflex, grey mucous membranes, and rigor mortis are all criteria that can be used to verify death.

Once proper euthanasia has occurred, proper disposal of the animal's remains is required. The method of disposal should be determined prior to euthanasia of the animal. Local and state laws must be followed. If approved chemicals are used for the euthanasia, special consideration should be given to manage drug or chemical residues in order to protect scavengers or to protect adulteration of rendered products. Proper disposal methods may include rendering, burial, composting, or incineration.

## Further reading

Brumbaugh G.W., J.J England, C.A. Hinds. 2014.

Understanding Euthanasia on The Farm. *In* Idaho Extension Education Beef Cattle Producers Handbook, 4<sup>th</sup> ed. Western Beef Resource Committee.

Shearer, J.K., and A. Ramirez. 2013. Procedures for Humane Euthanasia: Humane Euthanasia of Sick, Injured and/or Debilitated Livestock. Iowa State University Extension. <http://vetmed.iastate.edu/HumaneEuthanasia>.

The Idaho Beef Quality Assurance Program is a partnership between University of Idaho Extension and Idaho Beef Council.

### The BQA Mission

To maximize consumer confidence and acceptance of beef by focusing the producer's attention to daily production practices that influence the safety, wholesomeness and quality of beef and beef products.

### BQA Certification

Certification requirements can be achieved by participating in a training session and completing the BQA quiz and personal contract. Certification is valid for three years. Learn more about BQA certification in Idaho, here: <http://extension.uidaho.edu/bqa/certification/>.

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