

Feel free to contact us,
or talk with your herd-
health veterinarian
about any questions or
feedback you have on
our newsletter or any
of our services. We're
here for your benefit.

VALLEY VETERINARIANS, INC.
COW DOCS

Special points of interest:

- On Farm Euthanasia

A sad necessity:

On-Farm Euthanasia

Being a dairyman requires that you all too frequently have to deal with an animal that no longer has a good quality of life, and cannot be shipped to a slaughter facility for entry into the food supply. On-farm euthanasia is a sad fact-of-life for everyone dealing directly with cows.

Indications for on-farm euthanasia include:

- Fractures or severe injuries that result in the inability to stand.
- Paralysis from traumatic or calving-related injuries that result in immobility.
- Debilitating or toxic conditions.
- Advanced eye disease that is not surgically repairable.
- Diseases with a poor prognosis.

Remember, cows that 'go to beef, are not just leaving the dairy, they are also going to be on someone's dinner table. Only healthy, mobile and drug-free animals should go to a slaughter facility. All other culls should be humanely, painlessly and promptly euthanized, except in the instance where a healthy, pain-free animal may need to remain on the farm to clear a beef-residue waiting period.

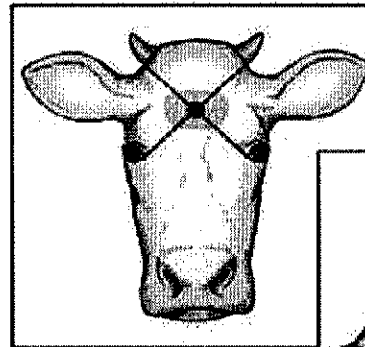
Each dairy and heifer-raising facility should have protocols that ensure euthanasia is performed appropriately and expediently. Protocols should be discussed with your herd-

health veterinarian. **There are only two appropriate and economical methods to perform an on-farm euthanasia:** 1) gunshot to the brain, or 2) penetrating captive bolt to induce a loss of consciousness followed by another procedure to ensure death.

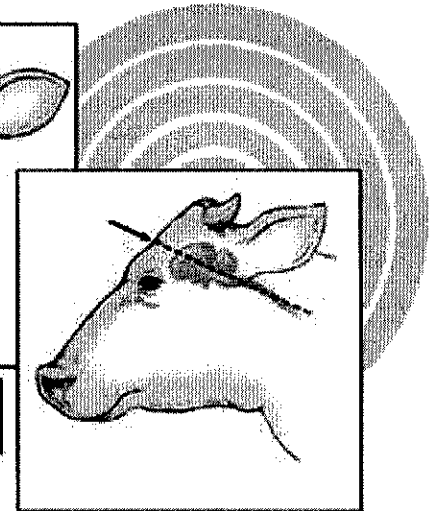
In most situations, gunshot is the most practical method. It is vital to use the appropriate caliber of firearm to ensure penetration of the skull-plate. The projectile

opposite horn would be (see diagram). The barrel of the gun should be perpendicular to the head, and the end of the barrel should be a minimum of 6 inches from the skull. **Firearms should never be held flush with the skull, since this may result in explosion of the barrel.**

A firearm is less expensive than a captive bolt gun, and only requires the one step. The obvious disadvantage is the potential for damage or



Not between the eyes, but above ears as illustrated.



must have enough mass and energy to penetrate the brain and cause substantial damage resulting in immediate death. All staff you have performing on-farm euthanasia should be adequately trained to ensure the effectiveness of their technique and that they are following appropriate safety guidelines. The target you are aiming for is the center of an X drawn from the inside corner of the cow's eyes to the base of where the

injury to the operator or bystanders.

The captive-bolt gun is safer for those using it, but it requires two steps. A .22 caliber cap is used to fire a penetrating metal bolt into the brain straining the cow and inducing a loss of consciousness. A captive-bolt gun by itself is enough to kill a young calf, but something more is required to ensure death in a cow.

A sad necessity: On-Farm Euthanasia

Appropriate methods include a) the use of a pithing device introduced through the projectile entry site to increase destruction of brain tissue, b) cutting the carotid artery or milk vein c) intravenous injection of potassium chloride to cause cardiac arrest. The disadvantages to using a captive-bolt gun are that it requires immediate proximity to the cow (which may be difficult in a fractious cow) and it requires a higher initial investment to purchase than a firearm.

The people you have performing on-farm euthanasia should be trained to minimize animal distress. Live animals should always be approached quietly and restrained only in situations where it is necessary. Ambulatory animals may be moved to a convenient spot before euthanasia, but animals that are recumbent and unable to rise should be euthanized before they are dragged or moved to a spot convenient for removal. It should be a rare occurrence that you need to shoot a cow multiple times, and **death should always be confirmed before you leave the scene.** Some consideration should also be given to ensure that the people performing the euthanasias are not experiencing undue

amounts of stress or loss of empathy due to this unpleasant duty.

It is possible to kill an animal in ways not listed in this article. If the protocols on your dairy use some other method of euthanasia, be very careful that it is appropriate. Some other **unacceptable and inappropriate methods of killing animals** include:

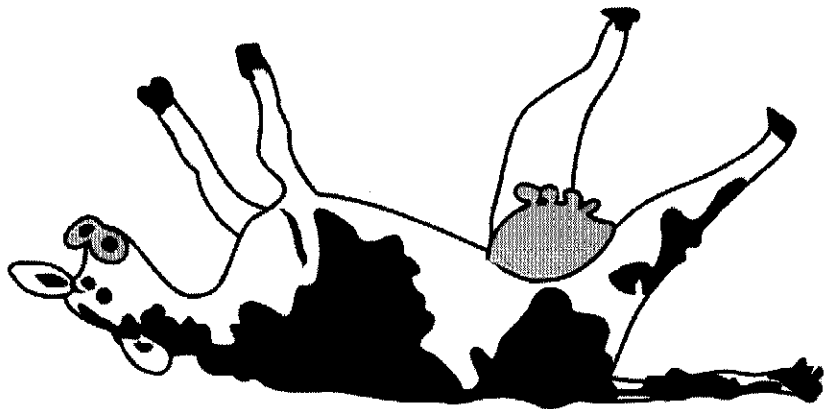
- Manually applied blunt trauma to the head using a hammer
- Injection of any chemical substance not specifically labeled for use as a euthanasia agent
- Injection of air into a vein
- Strangulation
- Use of loaders or other equipment to cause enough physical damage

that death is a result.

Not only are these methods inappropriate, they may be illegal. Should you have any questions, your veterinarian is an appropriate resource to discuss your on-farm protocol for euthanasia.

Scandals involving down-cows, procedures done inappropriately on young-stock, and inappropriate euthanasia of heifers have been disgraceful for the animal-agribusiness industry in the past few years. On-farm euthanasia is one issue that has enormous potential to be shocking to the milk-buying public, and it's critical that we guarantee that our protocols are acceptable to consumers.

Much of the information and many of the ideas in this article came from Dr. Jan Shearer's article Effective Euthanasia of Cattle under Field Conditions in the 2008 AABP Proceedings.



Key Points to Consider with Your On-Farm Euthanasia Protocol

1. Euthanize immobile animals before transporting them. Mobile animals can be moved somewhere convenient for removal before you euthanize them.
2. Restrain the animal if necessary, but avoid restraint and undue stress on the animal if possible.
3. Ensure that you use proper technique and an appropriate method to perform the euthanasia.
4. When using firearms, use an appropriate caliber to ensure death with a single shot.
5. Confirm death of the animal before you leave the site by checking for absence of a heartbeat, respiration and corneal reflex

"The measure of a society can be how well its people treats its animals."
Mohandas Gandhi