

HUMANE EUTHANASIA

STANDARD OPERATING PROCEDURE (SOP)

TEMPLATE AND GUIDELINES



GUIDING PRINCIPLE: Giving the gift of timely and proper euthanasia when cattle are suffering without ability to recover is a responsibility and a critical part of offering compassionate care.

SOP TEMPLATE

Following the Dairy Care 365 “Euthanasia: Making the Difficult Decision” module guidelines (pages 4-6), use this template and work with your veterinarian to develop a customized euthanasia SOP for your dairy. Communicate the SOP details to appropriate employees and have available for easy reference. Review and update the SOP at least annually.

Dairy name: _____

Address: _____

Owner / Manager: _____ Phone: () _____ - _____

Veterinarian: _____ Phone: () _____ - _____

DECISION TO EUTHANIZE (See Guidelines section 1.)

- Protocol should include:
 - a. Who makes the decision – include considerations for the night shift, as well as other times when those authorized to make the decision are unavailable (e.g. out of town).
 - b. Criteria for making the decision – include when to consult the herd veterinarian.

EUTHANASIA PROCEDURE (See Guidelines section 2.)

- Protocol should include:
 - a. Who is authorized to perform the procedure
 - b. Steps to ensure safety of both people and other animals
 - c. Appropriate secondary step if using captive bolt or firearm
 - d. Methods of ensuring death
 - e. Where euthanasia will be performed
 - f. Record of the event

ADDITIONAL NOTES

Owner / Manager signature: _____ Date: _____

Veterinarian signature: _____ Date: _____

Date SOP created: _____ Date SOP last revised: _____

1 DECISION TO EUTHANIZE

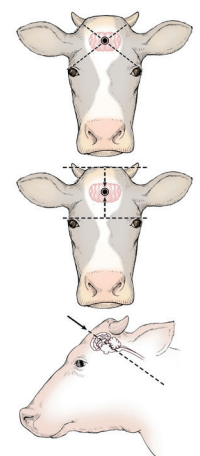
- List who is authorized to make the decision, as well as their hierarchy.
 - a. Know who is in charge if the primary authorized decision maker is not present.
 - For example, when Bob is absent, Frank is authorized to make the decision.
 - b. Ensure that authorized personnel are always available to make the euthanasia decision day and night.
- Make the decision and / or consult with your veterinarian.
 - a. Re-evaluate each cow of concern daily.
 - Include a time limit after which a non-ambulatory (down) cow will be humanely euthanized.
 - b. Know indications for euthanasia.
 - Extreme suffering and pain that cannot be effectively relieved by medical or other means
 - Traumatic injury – cows with fractures or other conditions from which they cannot recover
 - Injury / disease condition resulting in an animal that cannot be culled / marketed
 - Unsuitable for food (e.g. neurologic illness)
 - No effective treatment exists (e.g. lymphoma)
 - Treatment is cost prohibitive (e.g. femur fracture)
 - Animal is suffering and is still within the withdrawal interval of a drug with which it has been treated
 - Cows with fever, lymphoma, cancer eye, vaginal or uterine prolapse, visible fetal membranes, and cows with a body condition score less than 2
 - Cows that are non-ambulatory (down)
 - Unable to stand on its own for at least a few minutes for more than 24 hours
 - Unwilling to eat or drink for more than 24 hours
 - Unable or unwilling to remain in sternal recumbency (lying upright on chest with legs beneath the animal) for more than 24 hours



2 EUTHANASIA PROCEDURE

- Only authorized personnel trained on the below should perform euthanasia.
 - a. Basic anatomy of brain and skull
 - b. Equipment safety
 - c. Cleaning of firearm or captive bolt
 - d. Physical indicators of unconsciousness
 - e. Methods to ensure death

- If possible without increasing suffering, move the animal to your euthanasia area away from public view and away from other employees when gunshot is used.
- Choose an accepted method of euthanasia that results in immediate loss of consciousness, cardiac and respiratory arrest, loss of brain function, death.
 - a. Barbiturate overdose
 - b. Captive bolt
 - c. Firearm
- Do not choose an unacceptable method of euthanasia.
 - a. Manually applied blunt force trauma
 - b. Injection of chemicals, disinfectants or pharmaceuticals (except for drugs approved by the FDA specifically for euthanasia)
 - c. Electrocuting
 - d. Drowning
 - e. Intravenous air injection
 - f. Exsanguination (bleeding) of conscious animals
- Barbiturate overdose
 - a. Call your veterinarian.
 - b. Expect a smooth transition from consciousness to death.
 - c. Keep records.
 - d. Dispose of carcass via incineration or deep burial to ensure wildlife safety.
- Captive bolt / firearms
 - a. Use extreme caution and prioritize safety of people and other animals.
 - ALWAYS keep the gun pointed in a safe direction.
 - ALWAYS be sure there is a safe backstop for bullets that pass through the animal.
 - ALWAYS keep your finger off the trigger until ready to shoot.
 - ALWAYS keep the gun unloaded until ready to use.
 - Safely store the firearm.
 - Provide adequate training to anyone using firearms.
 - Do not allow access to untrained or unauthorized personnel.
 - b. Select the correct caliber of firearm.
 - Solid point bullets are preferred; .22 Magnum minimum (.22 LR has insufficient muzzle energy for routine use with mature cattle).
 - For shotguns, number 6 shot or larger BB size.
 - c. Correctly place the shot on the head.
 - Intersection of two imaginary lines from the outside corner of the eyes to the base of the opposite horn.
 - Another method for finding this site is to draw two lines laterally – one across the poll and the other between the outside corner of each eye. Place the shot on the midline of the forehead between the two lines.
 - Place captive bolt in contact with and perpendicular (90 degrees) to the skull. Hold firearm within 3 feet of and perpendicular (90 degrees) to the skull.



- Do not place firearm or captive bolt at the top of or behind the poll, as penetration is too shallow for effective results. In addition, potential for misdirection of the shot is increased.
- d. When using a captive bolt to perform euthanasia, a secondary step must always be performed after the animal is rendered unconscious.
 - Give an intravenous injection of a saturated solution of potassium chloride (KCl); 340 grams (3/4 pound or 12 ounces) of KCl in 1 liter (approximately 1 quart) of water creates a saturated solution.
 - Pithing (a pithing rod and training is required)
 - Exsanguinate (bleeding)
- Post euthanasia, check for signs of unconsciousness.
 - a. Immediate collapse when shot
 - b. Animal makes no attempt to right itself
 - c. Rigid body and muscles after being shot, followed by brief, tetanic-like spasms
 - d. Uncoordinated limb movements
 - e. Immediate and sustained cessation of rhythmic breathing
 - f. No vocalization
 - g. No palpebral eye reflexes
 - h. Eyes fixed in a blank stare
- Ensure animal is dead.
 - a. Use a stethoscope to check for heartbeat.
 - Check on the left side of the animal's chest just behind / beneath the elbow.
 - b. Look for absence of respiration.
 - c. Touch the eyeball (cornea) to see whether animal blinks.
 - d. Confirm death again 10-20 minutes later.
 - Absence of both heartbeat and respiration
 - No blinking when eyeball is touched
 - Lack of movement
 - Rigor mortis
- Record the event appropriately.
 - a. Date and time
 - b. Cow ID
 - c. Reason for euthanasia
 - d. Euthanasia method
 - e. Personnel involved
- Always clean and lubricate the captive bolt or gun after use and store properly.
 - a. Record date and person responsible for cleaning the device.

FOR MORE INFORMATION ABOUT DAIRY CARE 365, CONTACT YOUR MERCK ANIMAL HEALTH REPRESENTATIVE OR EMAIL DAIRYCARE365@MERCK.COM.