

Euthanasia Guide for Ontario Commercial Meat Rabbit Producers



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Introduction

Producers are responsible for the welfare of the rabbits in their care. Rabbits should be inspected for sickness or injury at least once a day. Sick or injured rabbits that will not recover or that fail to respond to treatment must be euthanized immediately. These rabbits are compromised and compromised animals must not be loaded for transport as per federal transport regulations:

Health of Animals Regulations; Part XII, 138, 2a: "No person shall load or cause to be loaded . . . an animal that by reason of infirmity, illness, injury, fatigue or any other cause cannot be transported without undue suffering during the expected journey." CFIA can fine individuals up to \$10,000 with increased fines for repeated offenders.

Verification of new or emerging euthanasia methods

Ongoing research is investigating methods of euthanasia to improve on current best practices.

Any euthanasia technique or equipment used must be compared against currently acceptable standards and methods. For example, a method of euthanasia that produces loss of sensibility (such as reflexes) as quickly and reliably as an approved method, will be considered as humane. In addition, any new euthanasia method used must align with the Canadian Code of Practice for the Care and Handling of Rabbits, all applicable laws, and be verified by a veterinarian.

Anyone performing euthanasia must understand that killing an animal in an inhumane manner may result in charges under various provincial animal protection legislation or regulations. All Ontario producers must be aware of these regulations, as well as the penalties for breaking them.

In Ontario, any person using an unacceptable method of euthanasia is contravening the Standard of Care Regulation, Ontario Society for the Prevention of Cruelty to Animals (OSPCA) Act.

"Every animal that is to be killed must be killed by a method that is humane and minimizes the pain and distress to the animal; an animal's pain and distress are deemed to be minimized if it is killed by a method that produces rapid, irreversible unconsciousness and a prompt subsequent death."

Penalties for contravening this act can include fines up to \$60,000 and/or imprisonment for up to two years, and a lifetime ban from owning animals.

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Warning: This booklet contains graphic images.

What is Euthanasia?

Euthanasia refers to ending of the life of an animal in a way that minimizes or eliminates pain and distress (AVMA, 2013; CVMA, 2014). It is characterized by rapid, irreversible insensibility, followed by prompt death. A good death is critical to the humane termination of an animal's life. In addition, attention to proper animal handling techniques will minimize distress experienced by the rabbit.

American Veterinary Medical Association (AVMA). 2013. AVMA Guidelines for the Euthanasia of Animals: 2013 Edition. www.avma.org/KB/Policies/Documents/euthanasia.pdf

Canadian Veterinary Medical Association (CVMA). Euthanasia - Position Statement. 2014. www.canadianveterinarians.net/documents/euthanasia

WHEN IS EUTHANASIA NEEDED?

Euthanasia is an important piece of the on-farm animal welfare program. Euthanasia, when properly performed, alleviates animal suffering. The decision to euthanize will be based on a number of factors. Rabbits that are sick or injured must be euthanized without delay if:

- They are unlikely to recover
- They fail to respond to treatment
- They have disabling and painful conditions or injuries
- They are unable to access food or water
- They have poor body condition

MECHANISMS OF EUTHANASIA

Euthanasia methods that target the loss of brain function (insensibility) followed by the shutting down of body processes, are preferred and this is a key factor when considering a euthanasia method. This is accomplished by interfering with the brain's ability to communicate with the body, depriving the brain of oxygen or physically damaging the brain. Confirmation of death is an important step in euthanasia. All animals should be confirmed dead following the application of any euthanasia technique.

HANDLING AND RESTRAINT

Proper handling and restraint will minimize discomfort and fear for the rabbit, and reduce or eliminate the chance of an ineffective procedure. Proper restraint is crucial during any physical method of euthanasia. It is also important to reduce the chance of injury for the person euthanizing the rabbit.

FOR A TECHNIQUE TO BE CONSIDERED ACCEPTABLE AS A METHOD OF EUTHANASIA, IT MUST:

	Render the animal insensible rapidly
	Be reliable in causing death (repeatable)
	Cause the animal to die without regaining consciousness (irreversible)

OTHER CONSIDERATIONS WHEN CHOOSING A METHOD OF EUTHANASIA INCLUDE:

	Safety for the operator
	Emotional impact on the operator (esthetics)
	Public perception of the care given to the animal by the farmer
	Biosecurity concerns
	Economics



Euthanasia Strategies: Methods and Restraint

Non-penetrating captive bolt

APPROPRIATE FOR:

Pre-weaned kits 150 g (0.3 lb) and heavier



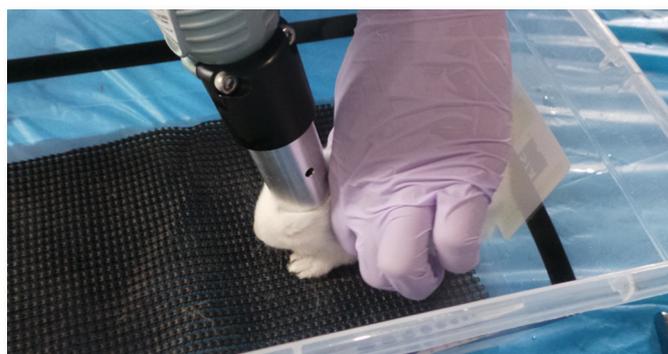
Weaned and growing rabbits



Adults



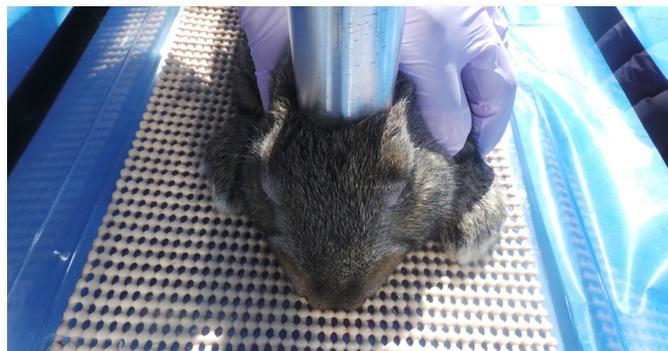
Appropriate restraint of a rabbit in a plastic container with nonslip flooring. The back end of the rabbit should be placed against something to prevent it from backing away.



Appropriate restraint and device placement for an older pre-weaned rabbit.



An example of a well-designed, homemade sealed wood restraint device with built-in adjustable pressure gauges.



Restraint and device placement for a growing rabbit.

RESTRAINT

1. The non-dominant hand gently restrains the rabbit by the scruff of the neck and the dominant hand operates the device.
2. Place the thumb and index finger lightly on either side of the rabbit's neck with the rest of the hand over the rabbit's shoulders.



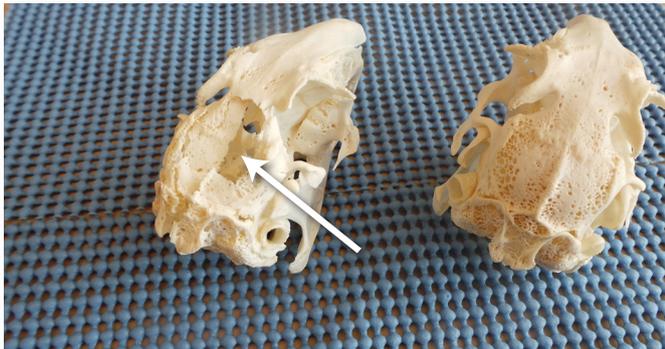
Non-penetrating captive bolt devices must be maintained and oiled as per manufacturer's instructions. The heads of the devices must be cleaned after each euthanasia session to ensure proper bolt action.

Age Group	Weight	Pressure*
Kits (<5 weeks)	150 g to 1 kg (0.3 to 2.2 lb)	55 psi
Weaned and growing rabbits (5 – 12 weeks)	1 kg to 1.5 kg (2.2 to 3.3 lb)	70 psi
Adults (12 weeks +)	1.5 kg or heavier (3.3 lb and heavier)	90 psi

*Note: if pressure cannot be accurately adjusted then a minimum of 90 psi should be used for all ages and sizes of rabbits.



Non-penetrating captive bolt



Skulls after and before non-penetrating captive bolt use (arrow points to damage to skull after use)



Non-penetrating captive bolt being oiled

APPLICATION

1. Place the barrel of the device in the middle of the rabbit's head, behind the eyes and immediately in front of the ears.
2. Apply a gentle downward force so that the rabbit's chin is stabilized on the surface. The barrel of the device must be in direct contact with the head.
3. Pull the trigger twice in rapid succession. Swelling under the skin (bleeding) is common, but if the correct pressure is used the skin will remain intact and no blood will be seen. A depression is often felt in the skull where the device was applied.



Euthanasia Strategies: Methods and Restraint

Assisted manual cervical dislocation

APPROPRIATE FOR:

Pre-weaned kits 150 g (0.3 lb) and heavier



Weaned and growing rabbits



Adults



The device must be mounted on the wall at or just below operator's shoulder height to permit the operator to pull the rabbit towards their body at the correct angle.



Assisted manual cervical dislocation device prior to mounting on wall. Note: green cap is meant to cover the free end of the device to protect against accidental injury when device is not in use.

When performed properly, assisted manual cervical dislocation results in rapid separation of the vertebral column (spine) and spinal cord from the brain, rupturing blood vessels and damaging tissue, leading to immediate insensibility. It is important that an appropriate device be used for this purpose and that it be firmly affixed to a solid structure. The vertebrae (bones of the spine) must not be fractured (broken) or damaged during this procedure, otherwise, the rabbit might suffer a broken neck but remain fully conscious.



Hand positions for the pull



Application in larger rabbit



Aligning the rabbit



Correct positioning of hands on rabbit hips and legs



Radiograph of rabbit skull and spine showing dislocation between skull and first vertebrae without damage to bones.

A sizeable gap can be felt between the skull and the first vertebrae when this technique is performed properly.

Rabbit welfare is not compromised if the head is accidentally detached from the rest of the body during cervical dislocation. There are biosecurity and aesthetic concerns to be considered, however.

ALIGNMENT

1. Adjust the opening of the device to the correct size for the animal. Larger animals require a larger slot.
2. Grasp the rabbit by the scruff of the neck with the dominant hand and use the other hand to support the rabbit's hind end. Carry the rabbit to the device and slide its head into the opening. The rabbit should be facing away from the operator.
3. Once head is in device, use dominant hand to gently adjust the rabbit's head while still supporting the rabbit's weight with other hand.
4. Reposition hands so that they are on either side of the rabbit's hips grasping the upper thighs. Operator's arms should be at a 90° angle holding the rabbit at a 45° downward angle from their body.

APPLICATION

5. With both hands on the rabbit's hips and the rabbit's head correctly positioned pull the rabbit at a 45° downward angle towards the operator's body in one quick and firm motion.

Manual cervical dislocation

APPROPRIATE FOR:

Pre-weaned kits <150 g (0.3 lb)



This method is not appropriate for growing and adult rabbits because of their large neck muscle mass and the tendency for them to fracture their spine before the cervical dislocation occurs.

In pre-weaned kits, this method can be accomplished by placing a narrow metal object, such as a closed pair of scissors, at the base of the skull prior to dislocation.



Restraining the kit for manual cervical dislocation

Rabbit welfare is not compromised if the head is accidentally detached from the rest of the body during cervical dislocation. There are biosecurity and aesthetic concerns to be considered, however.

APPLICATION

1. Restrain the kit on a solid surface with the animal's underside on the surface.
2. Place the object at the base of the skull with the dominant hand and firmly press the rabbit's chin to the surface.
3. Grasp the hips of the kit with the non-dominant hand.
4. Pull the rabbit's body upward away from the head and surface in one swift smooth motion at a 45° upward angle.
5. A sizeable gap will be felt between the skull and first vertebrae.
6. Blunt force trauma can be used as a method to stun the kits before performing manual cervical dislocation (see page 9 for details).

Euthanasia Strategies: Methods and Restraint

Decapitation

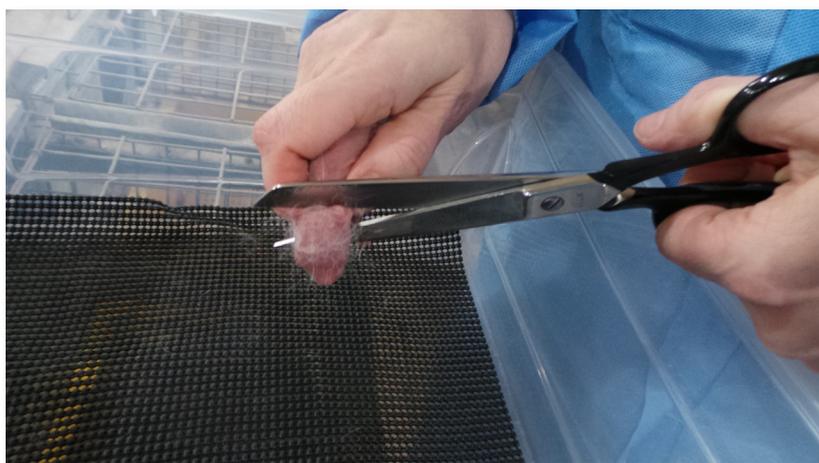
APPROPRIATE FOR:

Pre-weaned kits <150 g (0.3 lb)



This method is not appropriate for juvenile, growing or adult rabbits because of their large neck muscle mass.

Decapitation can easily be accomplished on young pre-weaned kits with use of appropriate equipment, such as heavy scissors or garden shears. Completely separating the head from the body leaves no question as to effectiveness of the procedure.



Restraining kit for decapitation

Biosecurity:

This method creates a risk due to the release of fluids. It is best done over a disposal bag or container.

APPLICATION

1. The scissor/shear blade should be placed right at the base of the skull and the top of the neck cutting through in one swift, smooth motion. Almost no bleeding will occur in young kits.
2. Blunt force trauma can be used as a method to stun the kits before performing decapitation (see page 9).

Blunt force trauma

APPROPRIATE FOR:

Pre-weaned kits <150 g (0.3 lb)



This method is not appropriate for juvenile, growing or adult rabbits because it can be difficult to restrain larger rabbits to ensure that the animal doesn't move prior to being struck, and there is an increased risk of operator injury if the animal moves.

Blunt force trauma refers to a quick firm blow to the back of the head, leading to immediate loss of sensibility. In 2005, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) amended the regulations of the *Food Safety and Quality Act* to prohibit the use of blunt force trauma as an approved method of rendering rabbits insensible prior to slaughter. Because rabbits are challenging to restrain properly, this stunning technique is only recommended for use on pre-weaned kits less than 150 g (0.3 lb) prior to using a suitable method of euthanasia, such as decapitation or manual cervical dislocation.



Restraint of kit for blunt force trauma stunning

APPLICATION

1. Hold the kit's body gently but firmly in one hand, with the back of the head facing away from the operator. Bring the back of the head of the animal rapidly and sharply into contact with a solid surface. Do not let go of the rabbit at any point during this procedure. Immediately apply a suitable euthanasia method to cause death.
2. Warning: Appropriate physical force needs to be used for blunt force trauma to be effective. This stunning technique may have a negative emotional impact on the operator and any observers.

Unacceptable methods for on-farm euthanasia

Any strategy for euthanasia that does not reliably and rapidly induce insensibility, is not consistently irreversible or is dangerous to operators is unacceptable.

UNACCEPTABLE METHODS *(not limited to items on this list)*

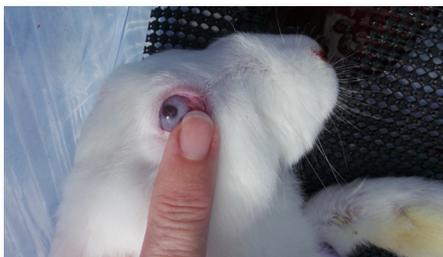
- | | |
|----------------|---------------------------------------|
| • Drowning | • Poisoning |
| • Suffocation | • Vehicle exhaust |
| • Bleeding out | • Incorrect application of any method |

Checking for Insensibility and Confirming Death

Regardless of the method used, it is important to test to ensure the rabbit is insensible immediately after application of the euthanasia procedure. Pain is a conscious perception and is not experienced when the rabbit is insensible. Insensibility should be immediate but death is a process that may take time (minutes) as the brain and other organs lose their functions. It is important to stay with the rabbit to ensure it remains insensible until death is confirmed.

The chart below contains signs to check to confirm that the rabbit is insensible. Note: these signs can be very difficult to see in pre-weaned kits <150 g (0.3 lb). For that reason, for kits <150 g (0.3 lb), a method of euthanasia is preferred that guarantees immediate death, such as decapitation.

Response	Live Sensible Animal	Insensible Animal	Dead Animal
Corneal reflex	Blinks when eye touched or attempts to move head away	Does not blink when eye touched and does not move head away	Unresponsive
Breathing	Nose moves up and down	Nose does not move	Nose does not move
Vocalization	Will vocalize when in pain	Will not vocalize, may hear a gasp as animal exhales last breath	Will not vocalize
Movement	Sits up and holds head upright	Involuntary kicks and/or rigid muscles (convulsions), lies on side and does not attempt to sit up	No movement
Heart beat	Can feel beating movement beneath the rib cage	Can feel beating movement beneath the rib cage	No beating movement felt over the rib cage
Toe or ear pinch	Withdraws head or foot in response to pinch	No withdrawal or movement seen	No withdrawal or movement seen



Testing for a corneal reflex. No blink should occur if the animal is insensible.



Using a toe pinch to test for foot withdrawal. No foot withdrawal should occur in an insensible animal.



Using an ear pinch to test for head withdrawal. No head withdrawal should occur in an insensible animal.

If a rabbit shows any of signs of sensibility the euthanasia method should be reapplied immediately or an approved back-up method used.

LIMITATIONS OF METHODS

Method	Limitations	Biosecurity Risk	Risk to Human Safety	Public Perception	Effect on Worker
Manual cervical dislocation	Only recommended for pre-weaned kits weighing <150 g (0.3 lb)	Green	Green	Yellow	Yellow
Assisted manual cervical dislocation	Recommended for rabbits weighing 150 g (0.3 lb) and heavier	Green	Green	Yellow	Yellow
Non-penetrating captive bolt	Recommended for rabbits weighing 150 g (0.3 lb) and heavier	Green	Green	Yellow	Yellow
Decapitation	Only recommended for pre-weaned kits weighing <150 g (0.3 lb)	Red	Yellow	Yellow	Red
Blunt force trauma	Only recommended as a method for stunning pre-weaned kits weighing <150 g (0.3 lb), prior to using cervical dislocation or decapitation	Green	Yellow	Red	Red

Green boxes indicate a lower risk of negative consequences in the areas indicated. Yellow boxes indicate a moderate risk of negative consequences. Red boxes are a higher risk of negative outcomes.

Euthanasia Action Plan

Farm Name: _____

Date: _____

Personnel Responsible for Euthanasia: _____

Age/Weight Group	Euthanasia Method	Backup Method
Kits <150 g (0.3 lb)		
Kits >150 g to 1 kg (0.3 to 2.2 lb)		
Growing rabbits 1.0 to 1.5 kg (2.2 to 3.3 lb) (5 to 12 weeks old)		
Adults >1.5 kg (>3.3 lb)		

Personnel responsible for euthanasia must be trained in methods of euthanasia, confirming insensibility, and confirming death.

Name	Date of Euthanasia Training (list method)	Date of Confirming Insensibility Training	Date of Death Confirmation Training

In all cases, farms must be prepared with a secondary approved method of euthanasia in the case of failure of the primary strategy for euthanasia. This secondary method must be implemented in a timely manner, as a failure of euthanasia attempt will result in a compromised rabbit that must be euthanized as quickly as is reasonable.

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