OMB Control No. 0910-0697 Expiration Date: 12/31/2023

Survey to Determine Euthanasia Practices and Use of Pentobarbital Among Veterinarians Practicing in the United States

A quantitative survey of the American Veterinary Medical Association (AVMA) members will be conducted to gauge practitioner understanding of euthanasia methods and gathering information for decision-making considerations for choice of euthanasia method by species, and recommendations made (or not) for disposal of the resulting carcass.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0910-0697 and the expiration date is 12/31/2023. The time required to complete this information collection is estimated to average 10 minutes, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding this burden estimate or any other aspects of this collection of information, including suggestions for reducing burden, to PRAStaff@fda.hhs.gov.

Web Greeting

(Web greeting will be on the opening survey page with the title of the survey and the AVMA's logo)

Thank you for participating in this AVMA survey. Your feedback is important to us and will help us determine additional needs for information and options around euthanasia and carcass disposal that we hope will assist you as you practice.

This survey is being conducted by the AVMA in collaboration with the U.S. Food and Drug Administration's Center for Veterinary Medicine (FDA CVM). Individual responses will be kept secure to the extent permitted by law, and only group statistics are compiled and included in reports. Your responses to demographic questions may be used to update your profile in the AVMA's database.

Should you have questions, please contact the AVMA by emailing Laura Pikel at LPikel@avma.org.

Hidden values: AVMAID, MemberTypeID, Graduation date, Age, Preferred State, Gender, Employment Type

Euthanasia Methods

[Show Q1 to all respondents]

1.	Which of the following species do you euthanize? (Select all that apply)
	() Sheep/Goats
	() Bison/Cattle (Beef & Dairy)
	() Equids (horses, mules,
	donkeys) () Swine
	() Dogs/Cats
	() Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)
	() Farmed avian (poultry, waterfowl)
	() Camelids/Cervids

C	onti	ract No.: 75F40120P00437
	()	Food fish
	()	Ornamental fish
	()	Rodents (purpose bred for research)
	()	Non-human primates
	()	Zoo animals
	()	Wildlife
	()	Do not euthanize animals [Skip to non-euthanasia use of pentobarbital section, Q5-Q5c and demographics]
2.	Ple	ase indicate which of the following euthanasia methods you use (Select all that apply):
	()	Pentobarbital
	()	Gunshot
	()	Captive Bolt
	()	Anesthetic Overdose (Other than pentobarbital)
	()	Electrocution
	()	MgSO4 or KCI
	()	Cervical dislocation/decapitation
	()	Gas (e.g. CO ₂)
	()	Other (Specify)

Carry Forward Selected Choices from "Which of the following species do you euthanize? (Select all that apply)"

3. When you euthanize, how often do you choose $\frac{[lm:/Field/1]}{for}$ for the following species when performing euthanasia? (*Rarely* = < 25%, *Sometimes* = 25-75%, *Often* = > 75%)

	Never	Rarely	Sometimes	Often
Sheep/Goats	0	0	0	0
Bison/Cattle (beef & dairy)	0	0	0	0
Equids (horses, mules, donkeys)	0	0	0	0
Swine	0	0	0	0
Dogs/Cats	0	0	0	0
Small exotics (birds, pocket pets, reptiles)	0	0	0	0
Farmed avian (poultry, waterfowl)	0	0	0	0
Camelids	0	0	0	0
Food fish	0	0	0	0
Ornamental fish	0	0	0	0
Rodents (purpose bred for research)	0	0	0	0
Non-human primates	0	0	0	0
Wildlife	0	0	0	0
Zoo animals	0	0	0	0

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If Please indicate which of the following euthanasia methods you use? (Select all that apply) = Pentobarbital

4.	If a food animal species (e.g. cattle (beef/dairy), sheep/goat, poultry etc.) is considered a family pet, how often are
	you likely to utilize pentobarbital for euthanasia of that animal?

- () Often (>75% of the time)
- () Sometimes (25-75% of the time)
- () Rarely (<25% of the time)
- () Never

				n euthanasia?

- () Yes
- () No

isplay This Question:

If Do you ever use pentobarbital agents for indications other than euthanasia? = Yes

5a. For which species do you utilize pentobarbital agents for indications other than euthanasia? (Select all that apply)

Sheep/Goats

Bison/Cattle (beef & dairy)

Equids (horses, mules, donkeys)

Swine

Dogs/Cats

Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)

Farmed avians (poultry, waterfowl)

Camelids/Cervids

Food fish

Ornamental fish

Rodents (purpose bred for research)

Non-human primates

Wildlife

Zoo animals

Display This Question:

If Do you ever use pentobarbital agents for indications other than euthanasia? = Yes

Carry Forward Selected Choices from "For which species do you utilize pentobarbital agents for indications other than euthanasia? (Select all that apply)"

5b. For what other indications do you utilize pentobarbital agents other than euthanasia for? (Select all that apply for each species)

	Anesthesia	Seizures	Sedation	Tranquilizer	Other
Sheep/Goats (xx1)					
Bison/Cattle (beef & dairy)					
Equids (horses, mules, donkeys)					
Swine					
Dogs/Cats					
Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)					
Farmed avian (poultry, waterfowl)					
Camelids/Cervids					
Food fish					
Ornamental fish					
Rodents (purpose bred for research)					
Non-human primates					
Wildlife					
Zoo animals					

Display This Question:		
If Other is selected	in	Q5b.

Q5c For what other indications do you utilize pe	ntobarbital agents?
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[Show if used pentobarbital]

- 6. When utilizing pentobarbital for euthanasia, which route of administration do you use (select all that apply)?
 - () Intracardiac
 - () Intrahepatic
 - () Intraosseous
 - () Intraperitoneal/Intracoelomic
 - () Intrarenal
 - () Intravenous
 - () Oral
 - () Other (please specify)

Display This Question:

If Please indicate which of the following euthanasia methods you use? (Select all that apply) = Pentobarbital

7. When using a pentobarbital product for euthanizing the following species, what dosage do you use? (Select all that apply)

low often do you utilize;\${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 species elected - Often Is Selected

or How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Sometimes Is Selected

Ir How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Rarely Is Selected

	1 mL per 10 pounds	Less than 1 mL per 10 pounds	Greater than 1 mL per 10 pounds
Sheep/Goats			
Bison/Cattle (beef & dairy)			
Equids (horses, mules, donkeys)			
Swine			
Dogs/Cats			
Small exotics (birds, pocket pets, pot- bellied pigs, reptiles)			
Farmed avian (poultry, waterfowl)			
Camelids/Cervids			
Food fish			
Ornamental fish			
Rodents (purpose bred for research)			
Non-human primates			
Wildlife			
Zoo animals			

isplay This Question:

If Please indicate which of the following euthanasia methods you use? (Select all that apply) = Pentobarbital

8.	When using pentobarbital, which available product(s) do you use? (Select all that apply) ²
	() Beuthanasia-D Special (Merck Animal Health))
	() Chloropent (Zoetis)
	() Combuthal Powder (Biomeda Animal Health
	Limited) () Euthasol® (Virbac AH, Inc.)
	() EUTHANASIA-III SOLUTION (Med-Pharmex, Inc.)
	() Euthanasia-III Solution (Covetrus North
	America) () Euthanasia Solution (Vedco)
	() FATAL-PLUS® SOLUTION (Vortech Pharmaceuticals Ltd.)
	() FATAL-PLUS® POWDER (Vortech Pharmaceuticals Ltd.)
	() VET one® Euthanasia (MWI)
	() Pentobarbital Sodium and Phenytoin Sodium (Akorn Animal Health,
	Inc.) () Pentobarbital sodium Injection (Covetrus North America)
	() Socumb™ (Henry Schein Animal
	Health) () Somnopentyl Injection
	(Intervet Inc.) () Other (Specify)

How often do you utilize;\${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 species selected - Often Is Selected

Or How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 species selected - Sometimes Is Selected

Or How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 species selected - Rarely Is Selected

9. When utilizing pentobarbital for euthanasia for the following species, how often do you pre-anesthetize/deeply sedate with an <u>injectable agent</u> prior to administering pentobarbital? (*Rarely* = < 25%, *Sometimes* = 25-75%, *Often* = > 75%)

	Never	Rarely	Sometimes	Often
Sheep/Goats	0	0	0	0
Bison/Cattle (beef & dairy)	0	0	0	0
Equids (horses, mules, donkeys)	0	0	0	0
Swine	0	0	0	0
Dogs/Cats	0	0	0	0
Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)	0	0	0	0
Farmed avian (poultry, waterfowl)	0	0	0	0
Camelids/Cervids	0	0	0	0
Food fish	0	0	0	0
Ornamental fish	0	0	0	0
Rodents (purpose bred for research)	0	0	0	0
Non-human primates	0	0	0	0
Wildlife	0	0	0	0
Zoo animals	0	0	0	0

low often do you utilize;\${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 species elected - Often Is Selected

Ir How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Sometimes Is Selected

or How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Rarely Is Selected

10. When utilizing pentobarbital for euthanasia for the following species, how often do you pre-anesthetize with gaseous anesthesia prior to administering pentobarbital? (*Rarely* = < 25%, *Sometimes* = 25-75%, *Often* = > 75%)

	Never	Rarely	Sometimes	Often
Sheep/Goats	0	0	0	0
Bison/Cattle (beef & dairy)	0	0	0	0
Equids (horses, mules, donkeys)	0	0	0	0
Swine	0	0	0	0
Dogs/Cats	0	0	0	0
Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)	0	0	0	0
Farmed avian (poultry, waterfowl)	0	0	0	0
Camelids/Cervids	0	0	0	0
Food fish	0	0	0	0
Ornamental fish	0	0	0	0
Rodents (purpose bred for research)	0	0	0	0
Non-human primates	0	0	0	0
Wildlife	0	0	0	0
Zoo animals	0	0	0	0

Euthanasia Disposal Practices

	Ques	

If Please indicate which of the following euthanasia methods you use? (Select all that apply) = Pentobarbital

- 11. When using a pentobarbital agent for euthanasia, who is responsible for the carcass after euthanasia? (select all that apply)
 - () Client
 - () Veterinarian
 - () Facility
 - () Depends on circumstances

low often do you utilize;\${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 species elected - Often Is Selected

Or How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Sometimes Is Selected

Dr How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Rarely Is Selected

- 12. Which of the following methods are you aware of for the disposal of remains following pentobarbital euthanasia for
 - ? (Select all that apply for each species)

	Rendering	Burial	Incinerator	Biodigester	Composting	Other
Sheep/Goats						
Bison/Cattle (beef & dairy)						
Equids (horses, mules, donkeys)						
Swine						
Dogs/Cats						
Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)						
Farmed avian (poultry, waterfowl)						
Camelids/Cervids						
Food fish						
Ornamental fish						
Rodents (purpose bred for research)						
Non-human primates						
Wildlife						
Zoo animals						

	If Other is selected in Q12.
C	Q12a What other methods of disposal are you aware of?

Display This Question:

[Show if used pentobarbital]

Display This Question:

13. Which of the following methods do you use or recommend for the disposal of remains following pentobarbital euthanasia for [insert species from Q2]: (select all that apply for each species) [Only show options selected in Q12]

	Rendering	Burial	Incinerator	Biodigester	Composting	Other
Sheep/Goats						
Bison/Cattle (beef & dairy)						
Equids (horses, mules, donkeys)						
Swine						
Dogs/Cats						
Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)						
Farmed avian (poultry, waterfowl)						
Camelids/Cervids						
Food fish						
Ornamental fish						
Rodents (purpose bred for research)						
Non-human primates						
Wildlife						
Zoo animals						

Q13a What other methods of disposal do you use or recommend?	

low often do you utilize;\${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 species elected - Often Is Selected

Dr How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Sometimes Is Selected

Or How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Rarely Is Selected

14. When utilizing pentobarbital agent(s), where is the euthanasia performed? (Select all that apply for each species)

	In a clinic	On client's property	Wilderness	Mobile clinic	Other
Sheep/Goats					
Bison/Cattle (beef & dairy)					
Equids (horses, mules, donkeys)					
Swine					
Dogs/Cats					
Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)					
Farmed avian (poultry, waterfowl)					
Camelids/Cervids					
Food fish					
Ornamental fish					
Rodents (purpose bred for research)					
Non-human primates					
Wildlife					
Zoo animals					

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Non-human primates								
Wildlife								
Zoo animals								
Display This Overtion								
Display This Question: If Other is selected in Q14.								
Q14a Where else is the pentobarbital performed?								

Communication between veterinarian and client

15. Please indicate your level of agreement with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The method of euthanasia is explained to my client, to help ensure disposal of the carcass is appropriate	[]	[]	[]	[]	[]
I advise my clients on disposal based on euthanasia technique and species	[]	[]	[]	[]	[]
I am familiar with local and state laws surrounding use of pentobarbital for euthanasia and carcass disposal	[]	[]	[]	[]	[]
I am familiar with federal laws surrounding use of pentobarbital for euthanasia and carcass disposal	[]	[]	[]	[]	[]

16. Please indicate how often you communicate with your client(s):

	Never	Someti mes	About half the time	Most of the time	Alway s	I don't use pentobarbital
That the use of pentobarbital to euthanize animals is a concern for relay toxicosis to wildlife and other species	[]	[]	[]	[]	[]	[]
That the use of pentobarbital to euthanize animals raises a concern for rendering the carcass	[]	[]	[]	[]	[]	[]
That disposal methods available for animals euthanized with pentobarbital can contaminate the soil and/or water	[]	[]	[]	[]	[]	[]

low often do you utilize;\${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 species elected - Often Is Selected

or How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Sometimes Is Selected

Dr How often do you utilize \${lm://Field/1} for the following species when performing euthanasia? (Loop 1: Pentobarbita...) Q3 pecies selected - Rarely Is Selected

17. Have you or your clients experienced issues (e.g., weather, environmental concerns, local restrictions, renderer refusal) regarding the disposal of carcass remains following pentobarbital euthanasia of the following species?

	Yes	No
Sheep/Goats		
Bison/Cattle (beef & dairy)		
Equids (horses, mules, donkeys)		
Swine		
Dogs/Cats		
Small exotics (birds, pocket pets, pot-bellied pigs, reptiles)		
Farmed avian (poultry, waterfowl)		
Camelids/Cervids		
Food fish		
Ornamental fish		
Rodents (purpose bred for research)		
Non-human primates		
Wildlife		
Zoo animals		

Displ	lay	This	Q Q	uest	ion	:	
	If V	es i	5 51	elect	ted	in	05h

18. If you have experienced issues with disposal of animals euthanized with pentobarbital, please describe.

[Show if Age is blank in the data file]

- 19. For statistical purposes, what is your age?
- 20. Please indicate the type of community you work in:
 - () Urban
 - () Suburban
 - () Rural
 - () Wilderness
- 21. Do you have any additional comments that you were not able to convey throughout this survey? [Open-ended]