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.](mailto: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 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]

1. Please 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. CO2)

 Other (Specify)

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

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

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

*Display This Question:*

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

1. 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

1. Do you ever use pentobarbital agents for indications other than euthanasia? ( ) Yes

( ) No

*Display 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 pentobarbital agents?

*[Show if used pentobarbital]*

1. 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*

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

*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*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **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 | ▢ | ▢ | ▢ |

*Display This Question:*

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

1. 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*

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

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

*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*

1. 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 | o | o | o | o |
| Bison/Cattle (beef & dairy) | o | o | o | o |
| Equids (horses, mules, donkeys) | o | o | o | o |
| Swine | o | o | o | o |
| Dogs/Cats | o | o | o | o |
| Small exotics (birds, pocket pets, pot-bellied  pigs, reptiles) | o | o | o | o |
| Farmed avian (poultry, waterfowl) | o | o | o | o |
| Camelids/Cervids | o | o | o | o |
| Food fish | o | o | o | o |
| Ornamental fish | o | o | o | o |
| Rodents (purpose bred for research) | o | o | o | o |
| Non-human primates | o | o | o | o |
| Wildlife | o | o | o | o |
| Zoo animals | o | o | o | o |

### Euthanasia Disposal Practices

*Display This Question:*

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

1. 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

*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*

1. 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 | ▢ | ▢ | ▢ | ▢ | ▢ | ▢ |

*Display This Question:*

*If Other is selected in Q12.*

## Q12a What other methods of disposal are you aware of?

*[Show if used pentobarbital]*

1. 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 | ▢ | ▢ | ▢ | ▢ | ▢ | ▢ |

*Display This Question:*

*If Other is selected in Q13.*

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

*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*

1. 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 | ▢ | ▢ | ▢ | ▢ | ▢ |

*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 | [ ] | [ ] | [ ] | [ ] | [ ] |

1. 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 | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

*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*

1. 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 | ▢ | ▢ |

*Display This Question:*

*If Yes is selected in Q5b.*

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

*[Show if Age is blank in the data file]*

1. For statistical purposes, what is your age?
2. Please indicate the type of community you work in:  Urban

 Suburban Rural

 Wilderness

1. Do you have any additional comments that you were not able to convey throughout this survey? *[Open-ended]*