



## Benton County Agriculture and Wildlife Protection Program

### Non-Lethal Deterrents Grant Program Guidelines and Information

#### Background

In June 2019, the Benton County Budget Committee approved \$45,000 to continue a program to encourage the proactive use of non-lethal animal damage deterrents in an effort to foster the coexistence of agriculture and wildlife in Benton County. While there is an educational outreach component of the Benton County Agriculture and Wildlife Protection Program (AWPP), the majority of funds goes towards a merit-based, cost share, reimbursement grant program. Agricultural operations in Benton County that wish to prevent conflicts with wildlife may qualify for up to \$5,000 in reimbursement grant funds for the purchase of proactive non-lethal wildlife deterrents to protect livestock and crops. Individuals experiencing conflicts with beavers may also qualify for grant funds for the purchase of deterrents to protect trees or prevent flooding.

This community-based program is funded by Benton County and managed by county officials in partnership with representatives from Oregon State University Extension Service, Chintimini Wildlife Center, Oregon Department of Fish and Wildlife, and Program Advisors.

The goals of the Benton County Agriculture and Wildlife Protection Program are to:

- Protect livestock and crops while coexisting with wildlife;
- Encourage the proactive use of non-lethal animal damage deterrents to prevent conflicts with wildlife;
- Offer a wildlife-friendly, non-lethal animal damage control program;
- Educate farmers and the community about wildlife conflicts and non-lethal methods to avoid conflicts;
- Foster a collaborative relationship between the farming and wildlife conservation communities, and Benton County government built around common goals.

#### Grant Program Overview

The AWPP grant program requires an application for non-lethal wildlife deterrent reimbursement funds. Applications must be received by Friday, July 31, 2020, 5:00 PM at 360 SW Avery Ave., Corvallis, Oregon, 97333. Applications for beaver deterrents will be accepted at any time and evaluated by County staff as they are received. All other grant applications will be evaluated by a grant review committee.

Successful applicants will be notified of the amount awarded by September 1, 2020. Grants will be awarded based upon availability of funds. Successful applicants may then purchase the approved deterrents and submit reimbursement request forms and receipts to Benton County. Checks in the name of the applicant are issued after County staff confirms that deterrents have been installed. Non-lethal wildlife deterrents described in the grant recipient's project plan must be installed by December 31, 2020 to be eligible for reimbursement. Beaver deterrents must be installed four months after grants are awarded. Reimbursement will occur after installation verification. Successful applicants are required to keep project records, report conflicts, evaluate their project, and abide by program requirements.

## Who is Eligible for Grant Funding?

Agricultural operations in Benton County, of any size, on leased or owned land, that are anticipating or have experienced conflicts with wildlife may apply for reimbursement funds. Commercial and hobby or lifestyle farms are eligible to apply. Individuals anticipating or experiencing conflicts with beavers may also apply. Though the non-lethal deterrents project must be located in Benton County, it is not necessary to be a resident of Benton County to apply. Applicants must plan to use their non-lethal deterrents at the project location(s) for three years to be eligible to receive grant funds.

## What is Eligible for Grant Funding?

Non-lethal wildlife deterrent equipment, devices, and housing which proactively protect livestock and crops are eligible for funding. Beaver deterrents to protect trees or prevent flooding are also eligible for funding. Deterrents for deer and elk are not eligible for funding. Examples of non-lethal deterrents include, but are not limited to: guardian animals, certain types of fencing, birthing sheds, visual and acoustic scare devices, and flow devices such as beaver pond levelers.

Non-selective lethal wildlife control methods such as traps, snares, calling-and-shooting, denning (killing animals in their burrows or dens – usually with poisons), or poisons are not reimbursable, or allowed, under this program.

Reimbursement funds can only be applied to new purchases made after the grant award date. Retroactive costs or purchases made prior to the grant award date will not be allowed.

## How Much Grant Funding is Available?

The AWPP for 2020 includes \$16,880 for the cost share reimbursement grant program - \$11,880 for anticipated conflicts with wildlife (including beavers) and \$5,000 for unexpected conflicts with beavers that arise after the grant application deadline. Each applicant may request up to \$5,000 in reimbursement grant funds. Partial awards may be necessary based on fund availability and strength of individual applications.

## Selecting Non-Lethal Methods and Tools

Applicants can select which non-lethal methods they believe will work best for their particular operation and describe how they will be used in their plan for conflict prevention in the grant application. The specific technique(s) employed will depend on the wildlife species present, history of conflicts, type and size of the operation, site characteristics, cost, and available resources. A single non-lethal method is rarely successful in most situations, so it is important to review all methods and match several tools to your specific situation and vary their use frequently. Non-lethal deterrents work best if used before conflicts with wildlife occur. Once wildlife has learned to exploit an unprotected resource, it can be challenging to prevent future conflict.

For more information see:

- Benton County AWPP Website: <http://www.co.benton.or.us/awpp>
- Livestock-Predator Hub: <http://rangelands.ucdavis.edu/predator-hub/current-research/>
- Farming with Carnivores Network: <http://farmingwithcarnivoresnetwork.com/animal-husbandry/>
- Non-Lethal Solutions to Reduce Conflicts: <https://tinyurl.com/y9eyed3h>
- The Encyclopedia of Animal Predators: <https://www.jandohner.com/resources>
- Safeguarding Livestock: <http://mountainlion.org/portalprotectlivestock.asp>
- Resolving Conflicts with Beaver: <https://www.beaverinstitute.org/>

For questions about the Benton County Agriculture and Wildlife Protection Program, the application form, or help designing a proactive wildlife deterrent program and selecting non-lethal methods and tools, please contact:

Jennifer Ward, Natural Resources Coordinator, Benton County Natural Areas & Parks  
360 SW Avery Ave.  
Corvallis, OR 97321  
[AWPP@Co.Benton.OR.US](mailto:AWPP@Co.Benton.OR.US)

### **Grant Application Evaluation and Selection Process**

Grant awards are based on responses to questions in the reimbursement grant application form. All grant applications will be evaluated by a selected grant review committee and county officials using a blind review process. Applicants that have not received funding in past years will be given priority consideration. In general, grants are awarded based on (1) agreement between the applicant's philosophy of animal damage control and goals of the AWPP, (2) likely effectiveness of the proposed non-lethal deterrents project plan, and (3) availability of funds.

### **Grant Program Requirements**

**Reimbursement Funds:** The grant funds received can only be used for the purchase of non-lethal deterrents to prevent wildlife-caused damage to, or loss of, livestock, crops, or property.

**Cost share:** Grant recipients agree to make a cash and/or in-kind (non-cash) contribution of at least 25% of the total cost of the project. The 25% contribution may include cash used for the purchase of deterrents approved through the AWPP grant program and/or an in-kind contribution of the expected labor costs for the installation of deterrents during the three-year period of the grant program ending December 31, 2023. In-kind contributions may include, but are not limited to, the labor costs associated with the construction of protective housing, or the installation of any other deterrent methods and devices purchased with grant program funds.

**Record Keeping:** Grant recipients agree to maintain a record of their non-lethal deterrents project operations for three years from the date the grant is awarded. The records will include descriptions of any conflicts with wildlife which were prevented or resulted in damage or loss. The Record Keeping form is included in the application packet.

**Reporting:** Grant recipients agree to immediately report any damage to, or loss of, livestock or crops, or flooding by beavers resulting from a failure of the deterrents used. Reports should be made to the AWPP county contact so that consultation with wildlife conflict experts is initiated and adjustments to deterrents can be discussed.

**Project Evaluation:** Grant recipients agree to submit annual Project Evaluation Reports by January 31, 2022, January 31, 2023 and January 31, 2024. The Project Evaluation Report evaluates the effectiveness of grant-funded non-lethal deterrents over the previous calendar year ending on December 31. This information will be used by county officials to evaluate the Program and help identify effective methods and projects. The Project Evaluation Report form is included in the application packet.

**Restrictions:** Grant recipients may not use non-selective lethal wildlife control methods such as traps, snares, calling-and-shooting, denning (killing animals in their burrows or dens), or poisons anywhere on the property where the funded non-lethal deterrents project will be implemented until December 31, 2023. Non-selective lethal methods can kill non-target species and non-offending individuals. Indiscriminate killing may have unintended consequences.

**Attractant Removal:** Grant recipients agree to remove all wildlife attractants at the project site including excess animal feeds, afterbirth, and sick, injured, or dead livestock.

**Special Situations or Exceptions:** Targeted killing (e.g. shooting) of an offending individual wild animal is allowed under the program but only when the animal is caught in the act of biting, wounding, killing or chasing healthy livestock. Shooting wildlife that respond to calls (calling-and-shooting) is not allowed under the program. Wild animals engaged in scavenging dead or dying livestock may not be killed.

**Site Visits:** County staff will schedule site visits to farm properties or other locations where non-lethal deterrents project activities are conducted to verify installation, use and success of non-lethal deterrents.

**Note:** Any use of lethal control must fall within the rules and regulations set forth by the Oregon Department of Fish and Wildlife. Threats to human health and safety involving wildlife should be directed to the Oregon Department of Fish and Wildlife.



## Non-Lethal Deterrents Grant Application Form

### Benton County Agriculture and Wildlife Protection Program

This Grant Application form, provided by the Benton County Agriculture and Wildlife Protection Program (AWPP), must be completed in order to be considered for non-lethal wildlife deterrent methods and tools reimbursement grant funds. Your responses on this application form will be used to evaluate your application.

Agricultural operations in Benton County that wish to prevent conflicts with wildlife may apply for **up to \$5,000** in reimbursement grant funds. Individuals anticipating or experiencing conflicts with beavers may also apply. Partial awards may be necessary based on fund availability. Grant recipients agree to make a cash and/or in-kind (non-cash) contribution of at least 25% of the cost of the total project.

The application includes the following sections:

- A. Questionnaire** - to assist in understanding your farming operation, needs for the program services and grant funding, project site characteristics and conflict history, understanding of non-lethal methods and their use, and philosophy of animal damage control.
- B. Proposed Non-Lethal Deterrents Project Plan** - a description of the methods, tools, implementation plans, and expected costs that will be used to evaluate the likely effectiveness of your proposed deterrents.
- C. Budget Summary** - a table of items, costs, and amount requested for reimbursement.
- D. Agreement Checklist** - a list of program requirements that must be agreed to and initialed.
- E. Release and Signature**

Please provide an answer to every question. If a question does not apply to your situation please indicate 'None' or 'Not applicable'. **Unless otherwise noted, questions pertain only to livestock or crops on the property where the funded non-lethal deterrents project will be implemented.**

If you plan to use your non-lethal deterrents at more than one project location please download and complete a **Grant Application Additional Site Form** for each additional site. Additional Site Forms are necessary, for example, if you apply for different deterrents for use at different sites or if you move your livestock seasonally and plan to use the same deterrents at different sites. Please return your Additional Site Form(s) with your Grant Application Form.

Applications must be received by **Friday, July 31, 2020, 5:00 PM**, at 360 Avery Ave., Corvallis, Oregon, 97333. Applications for beaver deterrents will be accepted at any time and evaluated by County staff as they are received. All other Grant applications will be evaluated by the grant award committee and county officials. Successful applicants will be notified of the amount awarded on September 1, 2020. Grants will be awarded based upon availability of funds.

For questions about the Benton County Agriculture and Wildlife Protection Program, this application form, or help designing a proactive wildlife deterrent program and selecting non-lethal methods and tools, please use the contact information below.

**Note: Applicants should not purchase materials or initiate a project in expectation of funding until receiving the final grant award document signed by an authorized county official.** Successful

applicants may then submit a reimbursement request form and receipts for approved deterrents to the county office. A check in the name of the applicant is then issued.

All approved and funded deterrents described in the grant recipients project plan must be in place and operational by December 31, 2020 for reimbursement to occur. Beaver deterrents must be installed four months after grants are awarded. Reimbursement will occur after installation verification.

Please complete the fillable PDF Grant Application form below and submit via email to:

[AWPP@Co.Benton.OR.US](mailto:AWPP@Co.Benton.OR.US)

A blank application form may also be printed, completed, and mailed to:

Jennifer Ward, Natural Resources Coordinator, Benton County Natural Areas & Parks  
360 SW Avery Ave.  
Corvallis, OR 97321

You may also fax your printed application form to Jennifer Ward at: 541-766-6871

Date: \_\_\_\_\_

Name of applicant: \_\_\_\_\_

Name of farm or operation if applicable: \_\_\_\_\_

Mailing address: \_\_\_\_\_

Physical address or description of project location:  
\_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

## A. QUESTIONNAIRE

Please answer each question below. If you are completing a printed paper form and additional space is needed, please attach pages as necessary to completely answer all questions. If you are applying only for beaver deterrents unrelated to farming operations, answer questions that relate to your beaver conflict and mark 'Not applicable' for questions that do not apply.

1. How long have you been farming? \_\_\_\_\_ Years (please fill in) \_\_\_\_\_ Not applicable

2. What level of income do you expect to derive from your farm products?

\_\_\_\_\_ Primary \_\_\_\_\_ Supplemental \_\_\_\_\_ No income \_\_\_\_\_ Not applicable

3. What livestock or crops and how many/much of each do you plan to protect with your non-lethal deterrents? Please mark all that apply.

_____ Sheep	# of adult head _____	# of lambs _____
_____ Goats	# of adult head _____	# of kids _____
_____ Hogs	# of adult head _____	# of piglets _____
_____ Cattle	# of adult head _____	# of calves _____
_____ Chickens	# _____	
_____ Ducks	# _____	
_____ Geese	# _____	
_____ Turkeys	# _____	
_____ Other Livestock	species and # adults/young _____	
_____ Forestry/Nursery Trees	types and # or acres _____	
_____ Fruits/Nuts	types and # or acres _____	
_____ Grass/Sod	types and # or acres _____	
_____ Hives (bees/honey)	types and # _____	
_____ Other Crops	types and # or acres _____	
_____ Not applicable		

4. How many acres do you own \_\_\_\_\_ lease \_\_\_\_\_ at the non-lethal deterrents project location?

5. Does someone reside at the non-lethal deterrents project location? \_\_\_\_\_ Yes \_\_\_\_\_ No

6. Is the setting of your non-lethal deterrents project mostly isolated from residential homes, non-farm businesses, and public parks?

\_\_\_\_\_ Yes \_\_\_\_\_ No

If no, please describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Is the environment at your non-lethal deterrents project location mostly open grassland/pasture?

\_\_\_\_\_ Yes \_\_\_\_\_ No

If no, please describe: \_\_\_\_\_

8. Is the terrain at your non-lethal deterrents project location relatively flat?

\_\_\_\_\_ Yes \_\_\_\_\_ No

If no, please describe: \_\_\_\_\_

9. Please indicate the causes of damage to or losses of livestock, crops, or property at your non-lethal deterrents project location **in order of most to least problematic causes**. Indicate rank with number: 1, 2, 3, etc. with 1 being the most problematic. If no damage or loss, mark None or Not applicable if appropriate. If new farm or location mark No history and indicate anticipated causes.

Livestock:

\_\_\_\_\_ Weather \_\_\_\_\_ Disease \_\_\_\_\_ Predation \_\_\_\_\_ Poaching

\_\_\_\_\_ Other (describe) \_\_\_\_\_

\_\_\_\_\_ None \_\_\_\_\_ Not applicable \_\_\_\_\_ No history (new farm or location)

Crops:

\_\_\_\_\_ Weather \_\_\_\_\_ Disease \_\_\_\_\_ Girdling \_\_\_\_\_ Stripping \_\_\_\_\_ Browsing \_\_\_\_\_ Grazing

\_\_\_\_\_ Consumption \_\_\_\_\_ Beaver-caused Flooding

\_\_\_\_\_ Other (describe) \_\_\_\_\_

\_\_\_\_\_ None \_\_\_\_\_ Not applicable \_\_\_\_\_ No history (new farm or location)

10. Please indicate the animals that have caused damage to or losses of livestock, crops, or property at your non-lethal deterrents project location **in order of most to least problematic species**. Indicate rank with number: 1, 2, 3, etc. with 1 being the most problematic. If no damage or loss, mark None or Not applicable if appropriate. If new farm or location mark No history and indicate anticipated animals.

\_\_\_\_\_ Coyotes \_\_\_\_\_ Beavers \_\_\_\_\_ Raccoons \_\_\_\_\_ Bobcats

\_\_\_\_\_ Foxes \_\_\_\_\_ Skunks \_\_\_\_\_ Cougars \_\_\_\_\_ Porcupines

\_\_\_\_\_ Bears \_\_\_\_\_ Birds

\_\_\_\_\_ Other (describe) \_\_\_\_\_

\_\_\_\_\_ None \_\_\_\_\_ Not applicable \_\_\_\_\_ No history (new farm or location)

11. Please ESTIMATE the total amount of livestock, crops, or property you have lost at your non-lethal deterrents project location due to wild animals or domestic dogs during the last three years. Mark no losses, no records, or no history if appropriate.

2020 Sheep \_\_\_\_\_ Lambs \_\_\_\_\_ Goats \_\_\_\_\_ Kids \_\_\_\_\_ Cattle \_\_\_\_\_ Calves \_\_\_\_\_ Fowl \_\_\_\_\_

Other (species and #) \_\_\_\_\_ Crops (types and # or acres) \_\_\_\_\_

Property (describe) \_\_\_\_\_

No losses \_\_\_\_\_ Did not keep records \_\_\_\_\_ No history (new farm or location) \_\_\_\_\_



2019 Sheep \_\_\_\_\_ Lambs \_\_\_\_\_ Goats \_\_\_\_\_ Kids \_\_\_\_\_ Cattle \_\_\_\_\_ Calves \_\_\_\_\_ Fowl \_\_\_\_\_  
 Other (species and #) \_\_\_\_\_ Crops (types and # or acres) \_\_\_\_\_  
 Property (describe) \_\_\_\_\_  
 No losses \_\_\_\_\_ Did not keep records \_\_\_\_\_ No history (new farm or location) \_\_\_\_\_

2018 Sheep \_\_\_\_\_ Lambs \_\_\_\_\_ Goats \_\_\_\_\_ Kids \_\_\_\_\_ Cattle \_\_\_\_\_ Calves \_\_\_\_\_ Fowl \_\_\_\_\_  
 Other (species and #) \_\_\_\_\_ Crops (types and # or acres) \_\_\_\_\_  
 Property (describe) \_\_\_\_\_  
 No losses \_\_\_\_\_ Did not keep records \_\_\_\_\_ No history (new farm or location) \_\_\_\_\_

12. Are you currently using, or have you used, any of the following non-selective lethal methods to protect your livestock, crops, or property at your non-lethal deterrents project location? For each method used, mark a 'C' if the method is Currently being used or 'P' if you have used the method in the Past. Please mark all that apply. If no lethal methods have been used, mark None used. If no conflicts experienced, mark Not applicable/No conflicts.

\_\_\_\_\_ Snares \_\_\_\_\_ Traps  
 \_\_\_\_\_ Poisons \_\_\_\_\_ Shooting (not caught in the act)  
 \_\_\_\_\_ Calling-and-shooting \_\_\_\_\_ Denning (killing animals in their burrows or dens)  
 \_\_\_\_\_ None used \_\_\_\_\_ Not applicable/No conflicts

13. Who implemented the lethal control methods marked above? Please mark all that apply. If no lethal methods have been used, mark None used. If no conflicts experienced, mark Not applicable/No conflicts.

\_\_\_\_\_ Applicant \_\_\_\_\_ Private wildlife control operator  
 \_\_\_\_\_ USDA-APHIS Wildlife Services trapper \_\_\_\_\_ Other (describe) \_\_\_\_\_  
 \_\_\_\_\_ None used \_\_\_\_\_ Not applicable/No conflicts

14. Were lethal control measures used before or after the conflict(s) occurred? Please mark all that apply. If no lethal methods have been used, mark None used. If no conflicts experienced, mark Not applicable/No conflicts.

\_\_\_\_\_ Before \_\_\_\_\_ After \_\_\_\_\_ None used \_\_\_\_\_ Not applicable/No conflicts

15. Please ESTIMATE the total number of animals that have been killed at your non-lethal deterrents project location to protect your livestock, crops, or property during the last three years. If no animals have been killed mark None. Mark none killed, no records, or no history if appropriate.

2020 Coyotes \_\_\_\_\_ Beavers \_\_\_\_\_ Raccoons \_\_\_\_\_ Bobcats \_\_\_\_\_ Cougars \_\_\_\_\_  
 Other (species and # killed) \_\_\_\_\_  
 None killed \_\_\_\_\_ Did not keep records \_\_\_\_\_ No history (new farm or location) \_\_\_\_\_

2019 Coyotes \_\_\_\_\_ Beavers \_\_\_\_\_ Raccoons \_\_\_\_\_ Bobcats \_\_\_\_\_ Cougars \_\_\_\_\_  
 Other (species and # killed) \_\_\_\_\_  
 None killed \_\_\_\_\_ Did not keep records \_\_\_\_\_ No history (new farm or location) \_\_\_\_\_

2018 Coyotes \_\_\_\_\_ Beavers \_\_\_\_\_ Raccoons \_\_\_\_\_ Bobcats \_\_\_\_\_ Cougars \_\_\_\_\_  
 Other (species and # killed) \_\_\_\_\_  
 None killed \_\_\_\_\_ Did not keep records \_\_\_\_\_ No history (new farm or location) \_\_\_\_\_

16. Are you currently using, or have you ever used, any of the following non-lethal methods to protect your livestock, crops, or property at any location? For each deterrent used, mark a 'C' if the deterrent is Currently being used or 'P' if you have used the deterrent in the Past. Please mark all that apply. If you have no experience with non-lethal methods, mark No experience. If no conflicts experienced, mark Not applicable/No conflicts.

Guardian Animals

\_\_\_\_\_ Guardian dogs  
 \_\_\_\_\_ Guardian llamas  
 \_\_\_\_\_ Guardian donkeys  
 \_\_\_\_\_ Guardian geese

Fencing

\_\_\_\_\_ Permanent electric fencing to exclude wildlife  
 \_\_\_\_\_ Portable electric fencing to exclude wildlife

Scare Devices

\_\_\_\_\_ Horns  
 \_\_\_\_\_ Lights  
 \_\_\_\_\_ Radios  
 \_\_\_\_\_ Fladry (hanging strips of fabric)

\_\_\_\_\_ Noisemakers  
 \_\_\_\_\_ Lasers  
 \_\_\_\_\_ Bells

Protective Housing

\_\_\_\_\_ Barn  
 \_\_\_\_\_ Shed birthing  
 \_\_\_\_\_ Shepherds/herders

Beaver Deterrents

\_\_\_\_\_ Flow devices (beaver pond levelers)  
 \_\_\_\_\_ Culvert fencing (beaver deceivers)  
 \_\_\_\_\_ Abrasive tree paint

Other (describe) \_\_\_\_\_

\_\_\_\_\_ No experience  
 \_\_\_\_\_ Not applicable/No conflicts

17. Who implemented the non-lethal methods marked above? Please mark all that apply. If no non-lethal methods have been used, mark None used. If no conflicts experienced, mark Not applicable/No conflicts.

\_\_\_\_\_ Applicant  
 \_\_\_\_\_ USDA-APHIS Wildlife Services trapper  
 \_\_\_\_\_ None used  
 \_\_\_\_\_ Private wildlife control operator  
 \_\_\_\_\_ Other (describe) \_\_\_\_\_  
 \_\_\_\_\_ Not applicable/No conflicts

18. Were the non-lethal methods used before or after the conflict(s) occurred? Please mark all that apply. If no non-lethal methods have been used, mark None used. If no conflicts experienced, mark Not applicable/No conflicts.

\_\_\_\_\_ Before \_\_\_\_\_ After \_\_\_\_\_ None used \_\_\_\_\_ Not applicable/No conflicts

19. Describe any complicating factors that may pose a challenge to the effective use of the non-lethal deterrents you plan to apply for.

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20. Please indicate here the resources you used to select non-lethal methods and tools and develop your non-lethal deterrents project plan in Section II below. Indicate rank from most to least helpful with number: 1, 2, 3, etc. with 1 being the most helpful. If you did not need, or seek, any information or assistance please mark the appropriate line.

- Website links provided in the Grant Program Guidelines and Information pages
- Website links provided on the [Benton County AWPP Website](#)
- Benton County Farming with Wildlife Workshop videos
- OSU Extension Service Small Farms Conference Table
- The Encyclopedia of Animal Predators by Janet Vorwald Dohner
- Chintimini Wildlife Center
- Oregon State University Extension Service
- Benton County AWPP representatives
- Other farmers using non-lethal protection methods
- USDA-APHIS Wildlife Services
- Private wildlife control operator
- Other (describe) \_\_\_\_\_
- I have a solid understanding of non-lethal methods and did not need information or assistance
- I did not seek information or assistance

21. Realistic expectations are important when gauging the success of non-lethal deterrents. What are your expectations for your project?

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22. Is your farm operation wildlife friendly certified?

- Yes, Wildlife Friendly Enterprise Network
- Yes, Global Animal Partnership
- Yes, other certification (please fill in program name) \_\_\_\_\_
- No, but seeking certification
- No, not interested in certification
- Certification is not applicable to my farming situation (explain)

23. Why are you interested in using non-lethal deterrents?

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24. How did you learn about the Benton County Agriculture and Wildlife Protection Program grants?

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25. Have you received Benton County Agriculture and Wildlife Protection Program (AWPP) grant funds at any time in the past?

- No
- Yes     Year

## B. PROPOSED NON-LETHAL DETERRENTS PROJECT PLAN

Please fill in the tables below on methods, tools, and costs for items requested for reimbursement for your project site. In the questions following each table, describe your implementation plans for items requested for reimbursement. Applicants may apply for **up to \$5,000** in reimbursement grant funds.

Grant recipients agree to make a cash and/or in-kind (non-cash) contribution of **at least 25%** of the total cost of the project. The 25% contribution may include cash used for the purchase of deterrents approved through the grant program and/or an in-kind contribution of the expected labor costs for the installation of deterrents during the three-year period of the grant program ending December 31, 2023. In-kind contributions may include, but are not limited to, construction of protective housing for livestock or housing for guardian animals, or the installation of any other deterrent methods and devices purchased with grant program funds.

Please estimate your cash and/or in-kind (non-cash) cost share contribution for each type of deterrent **over the three-year period ending on December 31, 2023** and enter in the appropriate tables below. Your total cost share contribution **must be at least 25% of the total cost of the project**.

Use Table 1 below to assist in selecting non-lethal methods and tools for your project plan. This table was produced by agriculture professionals with the University of California-Davis [Livestock-Predator Research and Extension Hub](#) and combines observations and analysis from scientific studies as well as credible, on-the-ground experience. A single non-lethal method can rarely be used successfully in most situations, so it is important to review all methods and match several tools to your specific situation and vary their use frequently. Use Table 2 below to assist in selecting non-lethal methods to deter beavers.

Table 1. University of California-Davis non-lethal tool selection guidelines.

		If your predator of concern is a:						
		Dog	Coyote	Mtn Lion	Black Bear	Gray Wolf	Fox	Bobcat
Consider these tools:	Livestock guardian dog	●	●	●	●	●	●	●
	Donkey	●	●	NA	NA	NA	●	NA
	Llama	●	●	NA	NA	NA	●	NA
	Woven-wire fencing w/ trip wire	●	●	NA	NA	NA	NA	NA
	Permanent electric fencing	●	●	●	?	●	●	●
	Temporary electric fencing	●	●	?	NA	●	●	●
	Electro-net fencing	●	●	NA	NA	NA	●	●
	Fladry or turbo fladry	NA	?	NA	NA	●	NA	NA
	Attractant (carcass) removal	●	●	●	●	●	●	●
	Human presence / stockmanship	NA	NA	NA		●	NA	NA
	Night pen (small-scale operations)	●	●	●	●	●	●	●
	Fright tactics / devices		?	?	?	?	?	?
	Shed lambing / calving / kidding	●	●	●	●	●	●	●
	Multi-species grazing (cattle w/ small ruminants)	●	●	?	?	?	●	?

- Highly effective
- Moderately effective
- ? Research results with varying effectiveness
- NA No available evidence

Table 2. Non-lethal methods and devices for deterring beavers.

Method or Device	Description
<b>Protect Culverts / Prevent Flooding</b>	-
Beaver Deceiver	Trapezoidal fence to prevent damming of culverts
Double Filter System	Culvert fence filter and round fence filter connected by two flexible pipes
Flexible Pond Leveler	Flexible pipe and round fence filter to prevent flooding by lowering pond height
Castor Master	Double-walled flexible pipe and round fence filter to lower pond height
Beaver Baffle	Fence-covered pipe through culvert
Clemson Pond Leveler	Perforated solid pipe installed through dam to prevent flooding
Pipe and Fence Systems	Trapezoidal fence and pipe system encourages beavers to build away from culvert
<b>Protect Trees</b>	-
Galvanized Welded Wire Fencing	Encircle single trees or small groves
Electric Fencing	Encircle small groves and vineyards
Abrasive Tree Paint	Sand/paint mixture applied to tree trunks

## 1. GUARDIAN ANIMALS

Animals used to protect livestock and crops: guardian dogs, llamas, donkeys, geese, etc. **Labor costs for training and feeding and purchase costs for food and veterinary care are not reimbursable. One time costs such as a doghouse, or the labor costs for constructing a shelter may be applied toward the minimum 25% cost share contribution for guardian animals purchased with grant program funds.**

For example, a trained Great Pyrenees guardian dog can have an initial purchase cost of \$2,250 with initial supplies, materials and labor for a shelter for the dog running \$750. The total cost for this non-lethal deterrents project would be \$3,000. The Cost Share Contribution could include the initial supplies (collar, feeding dishes, etc.) and materials for the dog shelter as well as the labor which would equal \$750 or 25% of the total cost of the project.

Guardian Animal	Breed (if applicable)	# of Animals	Purchase Costs	Cost Share Contribution				Total Project Cost	Requested Amount
				Hours	Labor	Purchases	Total		
<i>Example: Dogs</i>	<i>Great Pyrenees</i>	<i>1</i>	<i>\$2,250</i>	<i>10</i>	<i>150</i>	<i>\$600</i>	<i>\$750</i>	<i>\$3,000</i>	<i>\$2,250</i>

\*Provide a professional estimate or calculate labor costs at \$15/hour.

## 2. FENCING

New fencing or improvements to existing fencing which serve to reduce conflicts with wildlife (for example, electrification or fladry) or contain guardian animals. **Fencing to exclude deer and elk are not eligible for funding.**

**Permanent or temporary fencing for the sole purpose of containing livestock is not reimbursable** (for example, electric single wire, high-tensile fence with horizontal wires greater than 6 inches apart, or any fence less than 48 inches high). **Labor costs for installing or moving fencing are not reimbursable but may be applied toward the minimum 25% cost share contribution.**

**A. New Fencing** – portable electric, woven wire, other.

For example, a section of portable electric net fencing can have an initial purchase cost of \$3,850. The cost for labor to install fencing could be \$15/hour x 10 hrs = \$150 for a total project cost of \$4,000. The Cost Share Contribution could be 10 hours of labor (\$150) and \$850 cash towards the cost of fencing = \$1,000 or 25% of the total cost of the project.

Type of Fencing/Supplies	Linear ft or units	Purchase Costs	Cost Share Contribution				Total Project Cost	Requested Amount
			Hours	Labor	Purchases	Total		
<i>Example: Electro-Net Fencing</i>	<i>5,280 ft</i>	<i>\$3,850</i>	<i>10</i>	<i>\$150</i>	<i>\$850</i>	<i>\$1,000</i>	<i>\$4,000</i>	<i>\$3,000</i>

\*Provide a professional estimate or calculate labor costs at \$15/hour.

**B. Improvements to Existing Fences** – electrification, fladry, other.

For example, 5000 feet of insulated wire can have an initial purchase cost of \$1,195. The cost for labor to install the electrified wire could be \$15/hour x 27 hrs = \$405 for a total project cost of \$1,600. The Cost Share Contribution could be 27 hours of labor (\$405), or 25% of the total cost of the project.

Type of Fencing Improvement/Supplies	Linear ft or units	Purchase Costs	Cost Share Contribution				Total Project Cost	Requested Amount
			Hours	Labor	Purchases	Total		
<i>Example: Insulated Wire</i>	<i>5,000 ft</i>	<i>\$1,195</i>	<i>27</i>	<i>\$405</i>	<i>-</i>	<i>\$405</i>	<i>\$1,600</i>	<i>\$1,195</i>

\*Provide a professional estimate or calculate labor costs at \$15/hour.



### 3. SCARE DEVICES

Horns, lights, radios, bells, noisemakers, lasers, scarecrows, other. **Labor costs for installing scare devices are not reimbursable but may be applied toward the minimum 25% cost share contribution.**

For example, a Foxlight night predator deterrent has an initial purchase cost of \$100. The cost for labor to install three Foxlights could be \$15/hour x 7 hrs = \$105. The total project cost to purchase three Foxlights (\$300) and install them (\$105) is \$405. The Cost Share Contribution could be 7 hours of labor = \$105, or 26% of the total cost of the project.

Type/Name of Device	# of Units	Purchase Costs	Cost Share Contribution				Total Project Cost	Requested Amount
			Hours	Labor	Purchases	Total		
<i>Example: Foxlight Night Deterrent</i>	3	\$300	7	\$105	-	\$105	\$405	\$300

\*Provide a professional estimate or calculate labor costs at \$15/hour.

### 4. PROTECTIVE HOUSING

Materials for constructing or improving barns, sheds for lambing/calving/kidding, night pens (protected area), and other protective housing. **Labor costs for constructing protective housing are not reimbursable but may be applied toward the minimum 25% cost share contribution.**

For example, materials for a lambing shed can have a purchase cost of \$3,700 and labor cost to construct the shed of \$15/hour x 20 hours = \$300 for a total project cost of \$4,000. The Cost Share Contribution could be 20 hours of labor (\$300) and \$700 cash towards the materials = \$1,000, or 25% of the total cost of the project.

Supplies for Housing or Improvement	Purchase Costs	Cost Share Contribution				Total Project Cost	Requested Amount
		Hours	Labor	Purchases	Total		
<i>Example: Materials for Lambing Shed</i>	\$3,700	20	\$300	\$700	\$1,000	\$4,000	\$3,000

\*Provide a professional estimate or calculate labor costs at \$15/hour.

**5. OTHER NON-LETHAL DETERRENTS**

Describe any other non-lethal methods, tools, or devices you are considering. **Labor costs for other non-lethal deterrents are not reimbursable but may be applied toward the minimum 25% cost share contribution.**

Method/Tool/ Device/Supplies	# of Units	Purchase Costs	Cost Share Contribution				Total Project Cost	Requested Amount
			Hours	Labor	Purchases	Total		

\*Provide a professional estimate or calculate labor costs at \$15/hour.

What livestock or crops and how many or much (number/acres) of each do you plan to protect with:

guardian animals? \_\_\_\_\_  
 new fencing? \_\_\_\_\_  
 improvements to existing fences? \_\_\_\_\_  
 scare devices? \_\_\_\_\_  
 protective housing? \_\_\_\_\_  
 other non-lethal deterrents? \_\_\_\_\_

Describe the species you plan to deter with:

guardian animals? \_\_\_\_\_  
 new fencing? \_\_\_\_\_  
 improvements to existing fences? \_\_\_\_\_  
 scare devices? \_\_\_\_\_  
 protective housing? \_\_\_\_\_  
 other non-lethal deterrents? \_\_\_\_\_

Describe how you plan to use the non-lethal deterrents you indicated above. Include any complicating factors such as size of your operation, setting, environment, terrain, integration with other guardian animals, or other situations that may arise, and how you would avoid or respond to them:

guardian animals? \_\_\_\_\_  
 \_\_\_\_\_  
 new fencing? \_\_\_\_\_  
 \_\_\_\_\_  
 improvements to existing fences? \_\_\_\_\_  
 \_\_\_\_\_  
 scare devices? \_\_\_\_\_  
 \_\_\_\_\_  
 protective housing? \_\_\_\_\_  
 \_\_\_\_\_  
 other non-lethal deterrents? \_\_\_\_\_  
 \_\_\_\_\_

Expected date of implementation: \_\_\_\_\_

**6. BEAVER DETERRENTS**

Methods or devices to protect trees or prevent flooding. Materials for integrated fence and pipe systems (flow devices) and fencing such as culvert fencing, galvanized welded wire fencing, or electric fencing. Other methods such as abrasive tree paint. **Labor costs for installing flow devices are not reimbursable but may be applied toward the minimum 25% cost share contribution.**

For example, the cost of culvert fence and pipe for a beaver pond leveler could be \$1,200. The cost of labor to construct the pond leveler could be \$15/hour x 27 hours = \$405 making the total project cost \$1605. The Cost Share Contribution could be 27 hours of labor (\$405) or 25% of the total cost of the project.

Method/Tool/Device/Supplies	Linear ft or units	Purchase Costs	Cost Share Contribution				Total Project Cost	Requested Amount
			Hours	Labor	Purchases	Total		
<i>Example: Culvert Fence and Pipe</i>	<i>20 ft</i>	<i>\$1,200</i>	<i>27</i>	<i>\$405</i>	<i>-</i>	<i>\$405</i>	<i>\$1,605</i>	<i>\$1,200</i>

\*Provide a professional estimate or calculate labor costs at \$15/hour.

What do you plan to protect with the proposed beaver deterrents?:

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Describe how you plan to use beaver deterrents. Include any complicating factors such as the stream velocity, setting, environment, terrain, or other situations that may arise, and how you would avoid or respond to them:

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Expected date of implementation: \_\_\_\_\_



## D. AGREEMENT CHECKLIST

Please indicate your agreement by initialing the following Program Requirements. Applicants must agree to all Program Requirements to be eligible to receive grant funds.

\_\_\_\_\_ My non-lethal deterrents project site(s) is/are located in Benton County.

\_\_\_\_\_ I agree that I will use the proposed non-lethal methods and tools at the site(s) described in this application.

\_\_\_\_\_ I plan to use my non-lethal deterrents at the project location(s) for at least three years.

\_\_\_\_\_ I agree that grant funds received will only be used for the purchase of non-lethal methods to prevent wildlife-caused damage to, or loss of, livestock or crops.

\_\_\_\_\_ I agree to make a cash and/or in-kind (non-cash) contribution of at least 25% of the requested grant amount.

\_\_\_\_\_ I agree to use the Record Keeping form provided for three years from the date my non-lethal deterrents are installed to maintain a detailed record of my non-lethal deterrents project operations including any conflicts with wildlife which were prevented or resulted in damage or loss.

\_\_\_\_\_ I agree to submit annual Project Evaluation Reports by January 31, 2022, January 31, 2023, and January 31, 2024.

\_\_\_\_\_ I agree to remove all wildlife attractants at my project site(s) including excess animal feeds, afterbirth, and sick, injured, or dead livestock.

\_\_\_\_\_ I agree to immediately report any damage to, or loss of, livestock or crops resulting from a failure of the deterrents used to County staff so that consultation with wildlife conflict experts can be initiated and adjustments to deterrents can be discussed.

\_\_\_\_\_ I agree I will not use non-selective lethal wildlife control methods such as traps, snares, calling-and-shooting, denning (killing animals in their burrows or dens), or poisons at the location of my non-lethal deterrents project until December 31, 2023.

\_\_\_\_\_ I agree that targeted killing (e.g. shooting) of an offending individual wild animal shall be used only when an animal is caught in the act of biting, wounding, killing or chasing healthy livestock.

\_\_\_\_\_ I agree to allow scheduled site visits with county staff to farm properties or other locations where non-lethal deterrents project activities are conducted.

\_\_\_\_\_ I agree to use the non-lethal deterrents at the project location(s) for three years to be eligible to receive grant funding.

**E. RELEASE AND SIGNATURE**

*I understand that any information provided to the Agriculture and Wildlife Protection Program in this application or other correspondence is available to the public upon request.*

*Benton County and the Agriculture and Wildlife Protection Program are not responsible for any injuries, taxes, etc. resulting from this grant. The Applicant assumes all liabilities for actions implemented by this grant.*

*By submitting this application, the person named below certifies that to the best of their knowledge the information in this application is true and correct and that they are legally certified to submit this application on behalf of this farm, which is legally eligible to enter into a grant agreement.*

*Note: Any use of lethal control must fall within the rules and regulations set forth by the Oregon Department of Fish and Wildlife. Threats to human health and safety involving wildlife should be directed to the Oregon Department of Fish and Wildlife.*

**Applicant Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Print Name** \_\_\_\_\_

**For County Use:**

**Administrator Signature** \_\_\_\_\_ **Date Received** \_\_\_\_\_

**Applicant ID Number** \_\_\_\_\_ **All Project Requirements were agreed to** \_\_\_\_\_