



## **Benton County Agriculture and Wildlife Protection Program**

### **2023 Annual Report**



*Safe and Sound: These chickens have a new 20x80 ft reinforced run with bird netting to prevent future hawk predation. This run also protects the flock from foxes, raccoons, and bobcats present onsite.*

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# 1. Executive Summary

## Introduction

In June 2023, the Benton County Budget Committee approved \$47,475 to fund the Agriculture and Wildlife Protection Program (AWPP) for the 2023-25 biennium. The Benton County AWPP began as a pilot program in 2017. The AWPP is a one-of-a-kind community grant program where farmers with any size of agricultural operation in the County can apply for reimbursement to implement non-lethal deterrents such as fencing, livestock guardian animals, and animal housing, to prevent and mitigate conflicts with wildlife as an alternative to trapping or killing of predators and beaver.

### Of the allotted funds:

- **\$37,475 was allotted for reimbursable grants** to protect livestock and prevent conflicts with wildlife.
- **\$5,000 was allotted for emergency grant funds** for beaver and wildlife conflicts that arise outside of the annual application window.
- **\$5,000 was allotted for program outreach and education** including printed materials and participation in local conferences and other events.

Successful applicants are required to keep annual project records, report conflicts with wildlife, evaluate their project, and abide by program requirements for three years following the completion of their project.

### This annual report summarizes:

- (1) Programmatic updates,
- (2) A summary of data from awarded grants, and
- (3) The awarding and status of the 2023 grants, as well as ongoing emergency grant projects.

## Education and Outreach

Activities in the last twelve months have included several outreach efforts.:

1. In August 2023, the AWPP had a booth at the **Benton County Fair & Rodeo**.
2. Benton County worked with Jeff Silverman of Silverman Studios to create a [promotional video](#) about the AWPP. The film is available on the Benton County YouTube channel and has currently been viewed over 500 times.
3. KSKQ Ashland featured a **radio interview** with Shea Steingass about the AWPP on the program 'Animals Matter' in January 2023.
4. AWPP tabled at the **OSU Extension Small Farms Conference** in February 2024.
5. The Program Coordinator (S Steingass) **visited vendors at the Corvallis Winter Market** in Fall 2023 to inform them of the program.
6. The AWPP's **annual press release** regarding 2023 awards which was subsequently [picked up by KEZI](#).
7. The [AWPP webpages](#) have been entirely reconstructed as of Winter 2023, as well as outreach materials updated to match the County's new website and branding.

8. Benton County provided a pond leveler array procured with USDA funds to the City of Corvallis for installation at Bruce Starker Arts Park. Several media pieces were issued on this installation mentioning Benton County, and a new [Living with Beaver website](#) that mentions AWPP and includes a link to our website.
9. We continue to maintain and enhance a “[Lending Library](#)” to give county residents the opportunity to try non-lethal deterrent devices and materials before purchasing them for themselves.

## Grant Program Results

In 2023, the AWPP awarded **\$23,930.50 to eight Benton County farms** for non-lethal wildlife deterrence projects, including two emergency awards for fencing, poultry netting and camera monitors to farms experiencing poultry predation issues.

As recommended by the AWPP Committee and farmers in the last two years, the grant timeline was amended in 2023 to include a longer application period and springtime project implementation period to be more accommodating to farmers. Applications are now open during October and November with awards announced in January; successful applicants have through April to build their projects and site visits and reimbursements take place during May and June. Therefore, as of this report all but two 2023-funded projects are still in the implementation phase.

### GRANT PROGRAM TIMELINE (Starting 2023)

<b>January 31</b>	Annual evaluation reports due for past recipients
<b>Oct 1 – Nov 30</b>	General grant application window opens
<b>Nov 30</b>	General grant applications due
<b>Dec 1 – 31</b>	Grant Review Committee reviews grant applications
<b>Jan 1</b>	General grant awards announced
<b>Jan – Apr</b>	General grant project implementation period for awardees
<b>Mar – Apr</b>	AWPP Coordinator <b>onsite visits</b> to verify eligibility for reimbursement
<b>May – Jun</b>	Reimbursement period

## Growing Program Interest

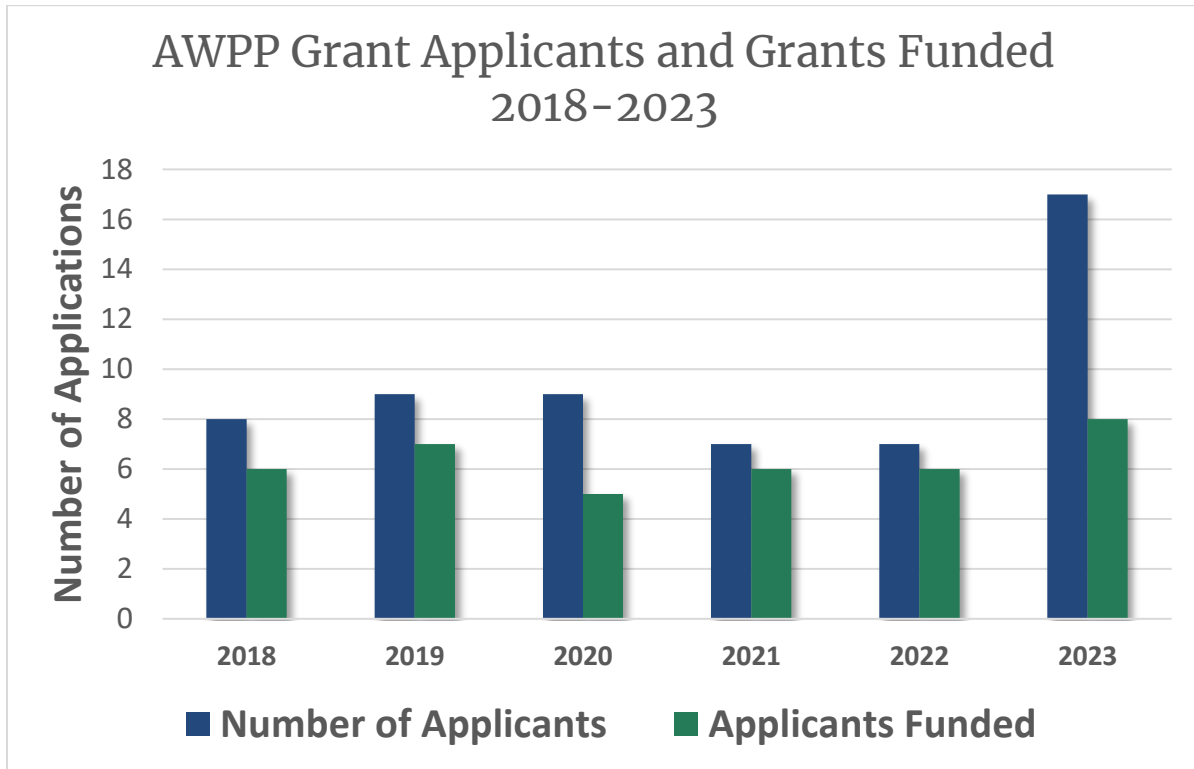
Increased outreach efforts in 2022-2023 have resulted in increased interest in the program. The number of farms applying in 2023 was nearly double that of previous years. The maximum number of grant requests prior to 2023 was nine annually. In 2023, AWPP received a total of 17 applications.

**In comparison to previous years where up to 86% of grants were funded (56%-86%, 2018-2022), we were able to fund less than half (46%) of applications submitted in 2023.**

Approximately \$15,000 of funds remain for 2024 grant awards; if increasing interest in the program continues, there is a strong possibility that a smaller percent of prospective projects can be funded. This increased competition and decreased success of applicants may decrease public interest in the program over time.



***The AWPP is currently funded with Road Fund Dollars. In the next biennium, Public Works may forward a request of a general fund match for these dollars to help grow the success of this unique and positive program for Benton County residents, livestock, and wildlife.***



*Figure 1. Total number of grant applicants and applications funded 2018-2023. The number of applicants jumped sharply in 2023, resulting in less than 50% of projects being funded.*

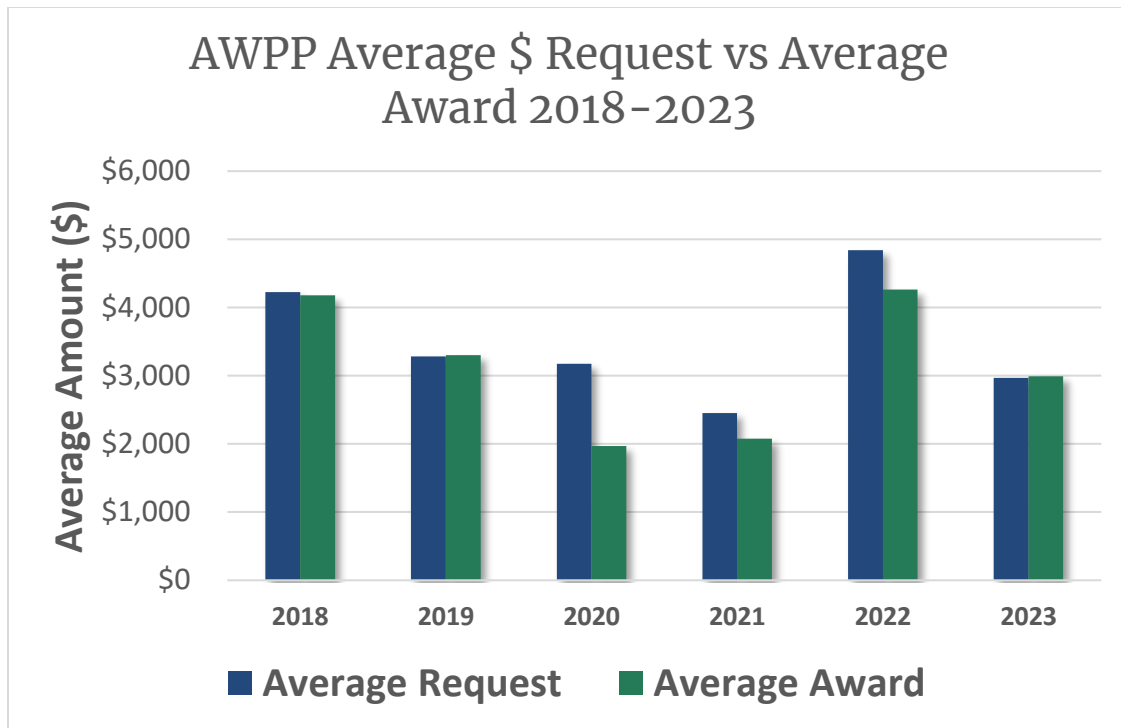


Figure 2. Average grant request in dollars by year along with dollar amount awarded. With the exception of 2020, most years generally match grant requests.

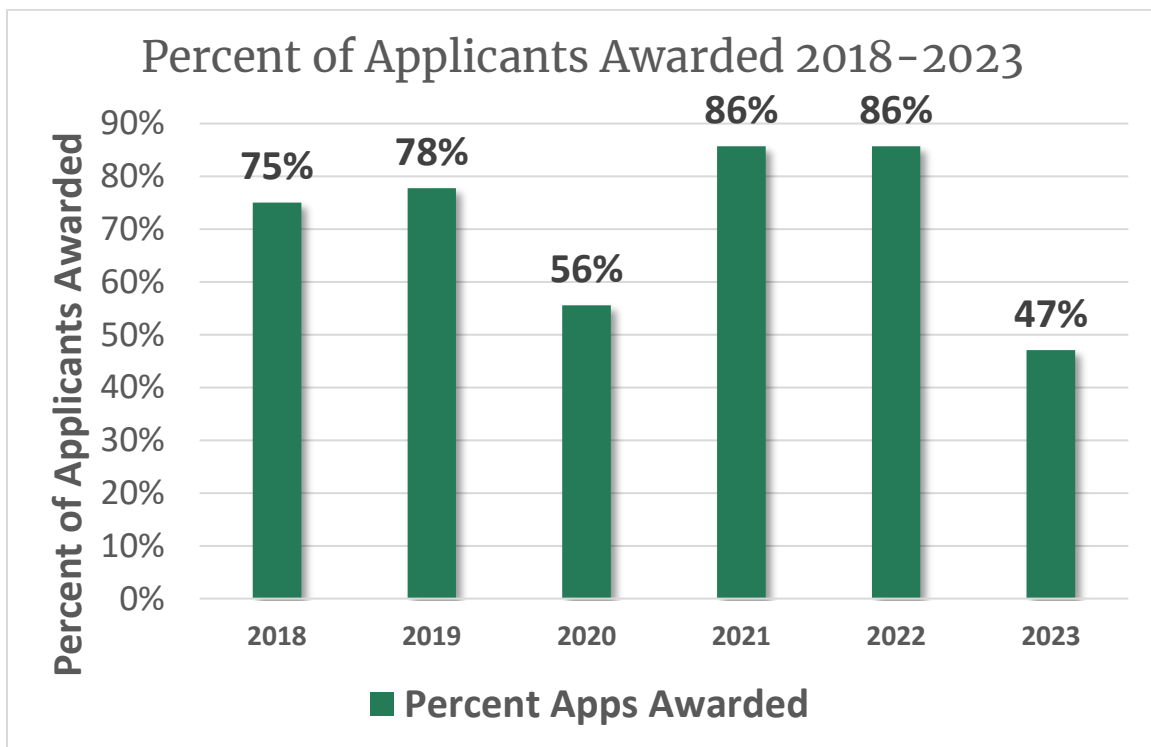


Figure 3. Percent of successful applications by year. 2023 represented a drop in proportion of successful applications due to increased program interest. While AWPP does fund previous awardees, the projects selected for funding in 2023 were all first-time awardees.

### Emergency Grants

Two emergency projects were awarded in 2023 for farms experiencing poultry losses; both projects included bird netting and fencing and have been completed as of March 2024.

### Beaver Co-Habitation

While there were no private landowner beaver-specific projects that requested funding in 2023, extensive communication with local watershed districts, NMFS, ODFW and USDA has resulted in a better and improving communication network for residents experiencing beaver-related property damage. In mid-2022, an additional USDA grant for outreach activities and materials in relation to non-lethal beaver management became available for Oregon counties, including Benton County. USDA is a new partner in non-lethal management of beaver conflict with this new revolving fund for mitigation devices and training for installation of these assemblies across the state.

## 2. Purpose and Structure

The purpose of the AWPP program is to provide: (1) a merit-based, cost share, competitive reimbursement grant program for Benton County farms and (2) educational outreach and expert consultation services around non-lethal wildlife deterrence for Benton County residents.

Agricultural operations in Benton County that wish to prevent conflicts with wildlife may qualify to be reimbursed for the purchase and implementation of approved non-lethal wildlife deterrents to protect livestock and crops.

This community-based program is funded by Benton County and managed by county staff in partnership with citizen volunteers and representatives from local agricultural and wildlife organizations, which form the Grant Committee.

Education and consultation services are provided by Benton County, Oregon State University Extension Service, Chintimini Wildlife Center, and Program Advisors. The Program Advisors include national experts in ranching with wildlife, predator ecology, and human-carnivore conflict.

Lastly, the AWPP has a variety of online and printed informational resources for community members as well as a 'Lending Toolkit' which contains non-lethal deterrent options including fence extenders, acoustic deterrents and visual deterrents that can be checked out and tested by farms who would like to try different deterrent methods.

## 3. Program Goals

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

- ✓ **Protect** livestock, crops and property while coexisting with wildlife;
- ✓ **Provide opportunity** for use of non-lethal animal damage deterrents to prevent conflicts with wildlife;
- ✓ **Educate** farmers and the community about wildlife conflicts and non-lethal alternatives of control;
- ✓ Build a **collaborative relationship** between the farming and wildlife conservation communities and Benton County government around common goals.

The AWPP does not evaluate or make recommendations on everyday animal husbandry practices, farm animal welfare, wildlife habitat, or land use.

## 5. Education and Outreach

The 2023-2025 biennial AWPP budget includes \$5,000 in allotted funds for outreach and education. This program provides educational information in the form of webpages, brochures, press releases, interactive handout materials, information tables and occasional public presentations on wildlife conflict prevention. These have included a table and hosted speakers at the OSU Extension Small Farms Conference. AWPP is annually represented with a table at OSU Extension's Small Farms Conference.

AWPP provides consultation services on the selection and use of non-lethal wildlife deterrents at the request of agricultural operators in Benton County that are anticipating or have experienced conflicts with wildlife. Additional public-focused education and consultation services are provided by Benton County, Oregon State University Extension Service, Chintimini Wildlife Center, and AWPP Program Advisors. The Program Advisors include experts in ranching with wildlife, predator ecology, and human-carnivore conflict. More about the resources AWPP offers can be found at [pw.bentoncountyor.gov/AWPP](http://pw.bentoncountyor.gov/AWPP).

### Outreach Successes in 2023

#### New Website

The AWPP website has been entirely updated and re-composed with 2023's new Benton County website. Primary changes include more concise organization and information, videos, and downloadable resources. Perhaps most excitingly, annual reporting has been modernized from hard copy/downloadable PDFs to a Survey123 form integrated into the website which will simplify and hopefully enhance reporting compliance.

#### Lending Library

The AWPP continues to maintain and augment a "Lending Toolbox" to give county residents the opportunity to check out and try non-lethal deterrent devices and materials before purchasing them for themselves, as well as a small "Lending Library" of books on the topic of agricultural coexistence with wildlife. In 2023, we received three additional wildlife cameras with SD cards from USDA Wildlife Services that farms can borrow to find the cause of livestock, crop and poultry losses. Many past applicants have used our lendable camera to identify predators before submitting a grant request.

#### Growing Program Interest

As additional outreach occurs, the trajectory of annual applications is increasing. Applications reached an all-time high in 2023 that was nearly double that of any previous year. This appears to be a result of public outreach events, word of mouth, and other media regarding the AWPP and is a testament to this successful program.

## 6. Grant Program

### 2023 Program Results

AWPP grantees are required to keep project records, report conflicts, evaluate their project, and abide by program requirements for three years following the completion of their project.



Reporting compliance is increasing from past years, likely due to the new electronic reporting format and reminder emails. Reports are important as they allow for quantitative assessment of the effectiveness and benefits of non-lethal deterrent systems. Generally, past grant awardees have been very positive about their deterrents and experience and in many cases have referred friends or neighbors to the program.

## 2023 Awards

**In 2023, \$23,930.50 was awarded to eight Benton County farms.** In addition, a pond leveler array was contributed to a collaborative project with Marys River Watershed Council, the City of Corvallis, and the Bonneville Environmental Foundation to mitigate for flooding caused by beavers at Bruce Starker Arts Park. This publicly-visible demonstration project has garnered much interest and is an example of a solution for living with beaver in the urban environment.

The average property size for 2023 awardees was 20.09 acres, ranging from 2-75 acres. Farm operations provided all levels of income: none, supplemental and primary. Livestock protected in 2023 included chickens, sheep, and goats.

Table 1. Eight Benton County farms completed AWPP-funded projects in 2023.

Farm	Location	Size (Acres)	Funded Non-lethal Deterrents	Livestock Protected	Funded Amount
1	Corvallis – <i>Emergency Grant</i>	9.5	Chicken netting, fencing	Chickens (25)	\$548.00
2	Corvallis – <i>Emergency Grant</i>	4.25	Fencing with electric top and bottom wire, energizer, Wyze outdoor camera	Chickens, goats (11)	\$589.50
3	Albany	10	Fencing, lighting, shed improvements	Sheep, chickens (44)	\$5,000
4	Philomath	5	Electric fencing, scare devices, protective housing	Goats (5), chickens (20), geese (2)	\$5,000
5	Corvallis	2	Woven no-climb fencing; protective housing	Chickens (60)	\$4,049
6	Corvallis	28	Electrified fencing, livestock guardian animal, Foxlights/scare devices	Sheep (350)	\$5,000
7	Philomath	43	New fencing, electric netting	Sheep (13)	\$2,200
8	Philomath	12	Sound deterrents, portable electric fencing	Chickens (50), geese (11)	\$1,544

# Benton County Agriculture & Wildlife Protection Program



Farms Awarded by Year, 2018-2023 (n=36)

AWPP\_Recipient\_Data

YEAR

-  2018
-  2019
-  2020
-  2021
-  2022
-  2023

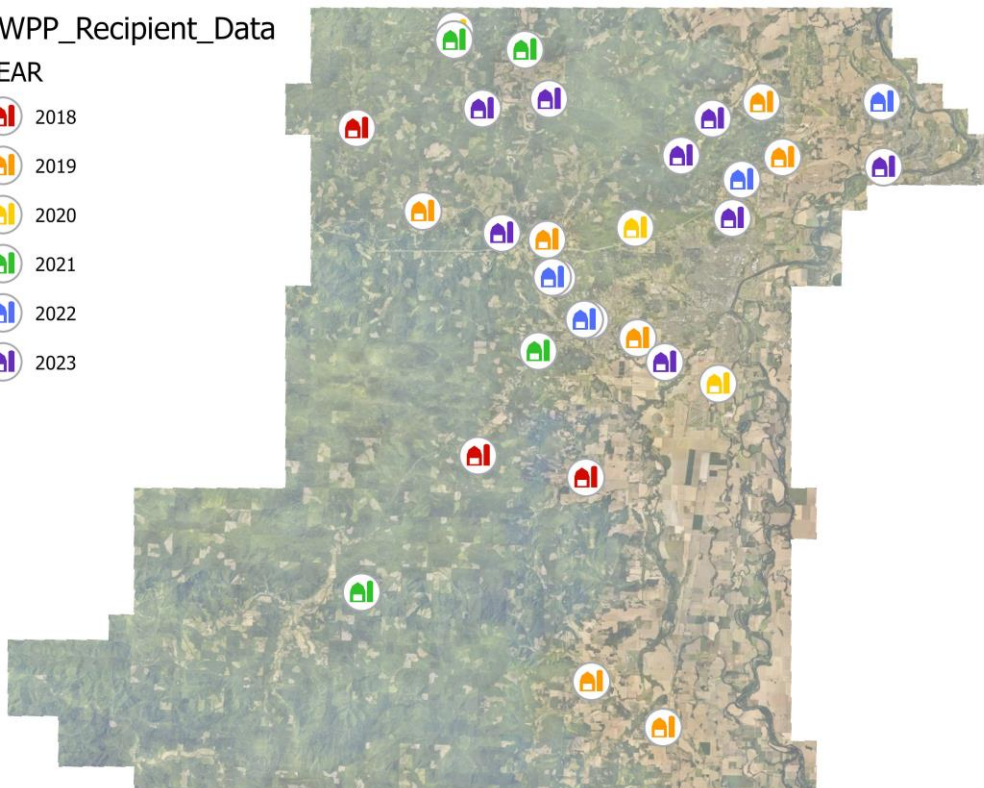


Figure 4. A map of Benton County AWPP grant recipients, 2018–Present. AWPP projects are across the County and awareness around the program is increasing. In many cases, communication between neighbors has resulted in subsequent applications by adjacent farmers.

## 7. Resources

### 7.1 Websites

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

### 7.2 Books

Choe JC. Encyclopedia of animal behavior. Academic Press; 2019 Jan 21.

Dohner JV. Livestock guardians: Using dogs, donkeys, and llamas to protect your herd. Storey Publishing; 2007 Dec 12.

Goldfarb B. Eager: the surprising, secret life of beavers and why they matter. Chelsea Green Publishing; 2018.

Elbroch M. The cougar conundrum: sharing the world with a successful predator. Island Press; 2020 Aug 13.

Shivik J. The predator paradox: Ending the war with wolves, bears, cougars, and coyotes. Beacon Press; 2014 May 13.

### 7.4 Scientific Journals

Blejwas, K. M., B. N. Sacks, M. M. Jaeger, and D. R. McCullough. 2002. The effectiveness of selective removal of breeding coyotes in reducing sheep predation. *Journal of Wildlife Management* 66:451-62.

Conner, M. M., M. M. Jaeger, T. J. Weller, and D. R. McCullough. 1998. Effect of coyote removal on sheep depredation in northern California. *Journal of Wildlife Management* 62:690-99.

[http://www.aphis.usda.gov/wildlife\\_damage/nwrc/publications/98pubs/98-24.pdf](http://www.aphis.usda.gov/wildlife_damage/nwrc/publications/98pubs/98-24.pdf)

Jaeger M. M. 2004. Selective targeting of alpha coyotes to stop sheep depredation. *Sheep & Goat Research Journal* 19:80-84. [http://www.aphis.usda.gov/wildlife\\_damage/nwrc/publications/04pubs/jaeger041.pdf](http://www.aphis.usda.gov/wildlife_damage/nwrc/publications/04pubs/jaeger041.pdf)

Jaeger, M. M., K. M. Blejwas, B. N. Sacks, J. C. C. Neale, M. M. Conner, and D. R. McCullough. 2001. Targeting alphas can make coyote control more effective and socially acceptable. *California Agriculture* 55:32-36.

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Linnell, J.D.C., M.E. Smith, J. Odden, P. Kaczensky, J.E. Swenson. 1996. Strategies for the reduction of carnivore-livestock conflicts: a review. *NINA Oppdragsmelding* 443:1-116. <http://tinyurl.com/y3czhj2a>

Sacks, B. N., M. M. Jaeger, J. C. C. Neale, D. R. McCullough. 1999. Territoriality and breeding status of coyotes relative to sheep predation. *The Journal of Wildlife Management* 63:593-605. <http://tinyurl.com/y2bupamd>

Shivik, J. A., A. Treves, P. Callahan. 2003. Non-lethal techniques for managing predation: primary and secondary repellents. *Conservation Biology* 17:1531-37.

[http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1266&context=icwdm\\_usdanwrc](http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1266&context=icwdm_usdanwrc)

Shivik, J.A. 2004. Non-lethal Alternatives for Predation Management. Sheep & Goat Research Journal 19:64-71.  
<http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1013&context=icwdmsheepgoat>

Treves, A., M. Krofel, J. McManus. 2016. Predator control should not be a shot in the dark. Frontiers in Ecology and the Environment 14(7): 380–388.  
[http://faculty.nelson.wisc.edu/treves/pubs/Treves\\_Krofel\\_McManus.pdf](http://faculty.nelson.wisc.edu/treves/pubs/Treves_Krofel_McManus.pdf)

## Appendix I: Past Award Summary Tables

Table 1. Four Benton County farms completed AWPP-funded projects in 2022.

Farm	Location	Size (Acres)	Funded Non-lethal Deterrents	Protecting	Funded Amount
1	Philomath	5.88	Livestock guardian dogs, fencing, housing	Sheep, goats, cattle, multiple poultry species	\$1,968.07
2	N. Albany	1	Fencing, chicken coop	Chickens	\$3,679.00
3	Corvallis	8.08	Livestock guardian animals, housing, fencing	Sheep, goats, chickens, turkeys	\$4,998.00
4	Philomath	24	Livestock guardian dogs, lights, fencing	Sheep, goats, alpaca	\$5,000.00

Table 1. Five Benton County farms completed AWPP-funded projects in 2021.

Farm	Location	Size (Acres)	Funded Non-lethal Deterrents	Protecting	Funded Amount
1	Corvallis	0.5	Fencing	Chickens	\$462.80
2	Alsea	67	Scare devices	Sheep, goats, chickens, ducks, turkeys	\$1053.00
3	Monmouth	13	Bird netting	Fruit trees, blueberries	\$1874.23
4	Philomath	1.1	Tree netting	Fruit tree orchard	\$964.90
5	Philomath	2.75	New fencing	Sheep, chickens, ducks, turkeys, fruit and nut trees	\$5,000

Table 2. Four Benton County farms that completed AWPP-funded projects in 2020.

Farm	Location	Size (Acres)	Funded Non-lethal Deterrents	Protecting	Funded Amount
1	Corvallis	1.17	Coop Extension	Chickens	\$274
2	Philomath	2.75	Electronet Fencing	Chickens	\$638
3	Philomath	3	Electric Fencing and Shed	Goats, Chickens, Bees	\$4,549
4	Philomath	5.46	Motion Lights and Barn	Goats, Pigs	\$4,934

Table 3. Seven Benton County farms completed AWPP-funded projects in 2019.

Farm	Location	Size (Acres)	Funded Non-lethal Deterrents	Protecting	Funded Amount
1	Corvallis	2	Electronet Fencing, Nite Guard Lights, Bird Repellent Tape, Motion Detection Cameras	Chickens	\$1,677
2	Monroe	3.5	Electronet Fencing, Nite Guard Lights, Bird Repellent Tape	Chickens, Orchard, Vegetables	\$560
3	Blodgett	32	Electric Fencing and Calving Shed	Cows, Turkeys, Pigs	\$4,676
4	Philomath	90	Electric Fencing and Foxlights	Goats, Chickens, Turkeys, Pigs	\$5,000
5	Philomath	10.5	Upgraded Fencing and Electric Fencing	Variety of Livestock, Orchard, Grass Crop	\$3,409
6	Corvallis	4.5	Upgraded Fencing, Electric Fencing, Motion Detection Lighting, Pens	Variety of Livestock, Orchard	\$4,810
7	Monroe	5.14	Birthing Barn	Sheep, Chickens, Timber, Orchard, Fruit	\$3,000

Table 4. Six Benton County farms completed AWPP-funded projects in 2018.

Farm	Location	Size (Acres)	Funded Non-lethal Deterrents	Protecting	Funded Amount
1	Corvallis	4	Electronet and Deer Fencing	Sheep, Goats, Crops	\$4,261
2	Philomath	50	Guardian Dogs, Electric Fencing, Foxlights	Chickens, Turkeys, Pigs	\$5,000
3	Philomath	10	Woven Wire Fencing, Enclosed Barn	Goats, Chickens, Bee Hives	\$5,000
4	Alsea	67	Electric Fencing, Nite Guard Lights	Variety of Livestock, Bee Hives	\$2,621
5	Blodgett	52	Electric Fencing, Night Corrals	Goats	\$3,713
6	Philomath	102	Guard Dogs, Electric Fencing, Bird Gard, Birthing Sheds	Sheep <sup>1</sup> , Hazelnuts	\$4,768

<sup>1</sup> The sheep were sold off in the middle of 2019.



## Appendix II: Recipient Feedback about the AWPP

The following testimonials illustrate the positive experiences that Benton County farmers are having with their AWPP projects:

*"I have always tried to use non-lethal deterrents first in any conflicts we've had. This program has allowed us to make some changes on the property to make that choice even easier to do and has even made it possible to have less conflicts overall."*

*"Using non-lethal deterrents has become standard process anytime we have new chicks or adult chickens added to our flock... I am so grateful that this program exists. Without it, I doubt we would have invested in multiple non-lethal predator deterrents, and without these layers of security, all of our chickens most likely would have been lost."*

*"We were devastated to lose four goats this year from a cougar. We watched the cougar jump over our old fence easily and walk away. We are so grateful to be able to afford to secure them better this year in our new electric fencing and 18" taller perimeter fence. I don't think our small farm would be able to afford this without this assistance."*

*"The netting keeps wild birds out, so they don't damage the blueberries."*

*"In past years I've lost all my lambs to predators and chickens to multiple predators. This year I've had zero conflicts with the lambs and only minor conflicts with the poultry."*



## Appendix III. 'AWPP in a Nutshell'



# Agriculture and Wildlife Protection Program

"In a Nutshell"



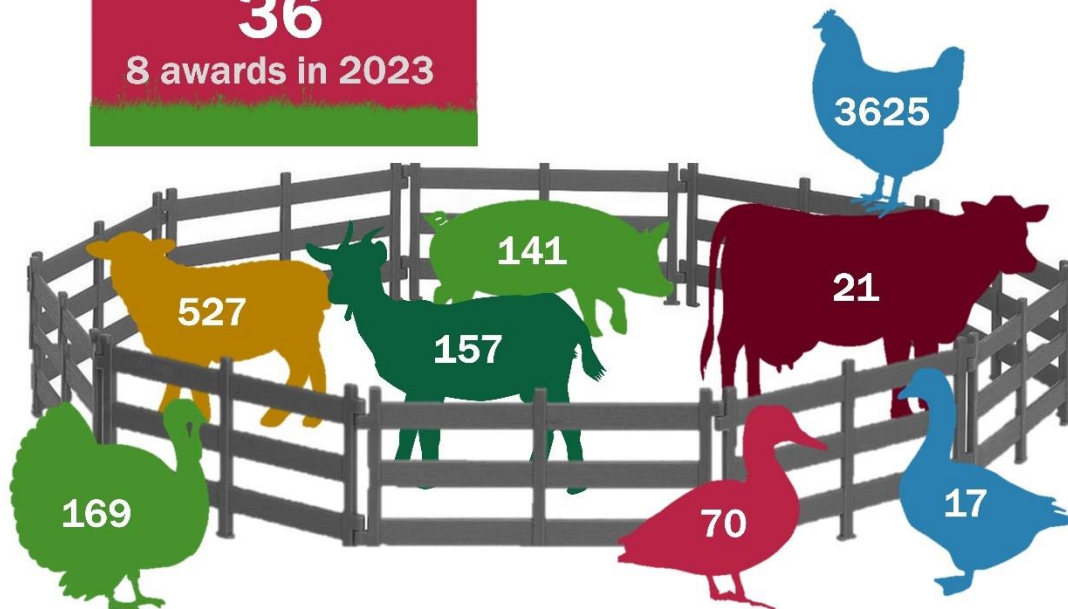
**\$106,884.12 in non-lethal wildlife deterrent grants awarded to Benton County farmers!**

**AWPP Awards  
2017-2023:**

**36**

**8 awards in 2023**

**Average Farm Size:  
20.38 acres**



**4,743 livestock protected...and counting!**

Learn more at [pw.bentoncountyor.gov/AWPP](http://pw.bentoncountyor.gov/AWPP)