



Benton County Agriculture and Wildlife Protection Program

2022 Annual Report



Lucky Clucks: These chickens have new 6-foot electrified fencing to keep them safe from predators!



Happy Hooves: This grant protected goats, sheep, and reinforced enclosures for livestock guardian dogs with six foot solar energized fencing.

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1. Executive Summary

Introduction

In June 2021, the Benton County Budget Committee approved \$45,000 to fund the **Agriculture and Wildlife Protection Program (AWPP)** for the 2021-23 biennium. The Benton County AWPP began as a pilot program in 2017. The AWPP is a community grant program where farmers in the County can apply for reimbursement to implement non-lethal deterrents to prevent and mitigate conflicts with wildlife. In the current biennium, \$45,000 in funding was approved for the AWPP. Of the \$45,000:

- \$35,000 was allotted for reimbursable grants to protect livestock and prevent conflicts with wildlife.
- \$5,000 was allotted for unexpected conflicts with beavers that arose after the annual grant application deadline; in fall 2022, this was later expanded to a general ‘emergency grant’ for all wildlife conflicts as there had not been any applications for beaver-specific issues.
- \$5,000 was allotted for program outreach and education.

AWPP grants have continued to be awarded annually since 2018 after the initial pilot phase. 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 2022 grants, as well as ongoing emergency grant projects.

Educational Outreach

Activities in the past twelve months have included the updating and addition of resources to the AWPP webpage, purchases of outreach materials, the broadening of the year-round ‘beaver’ fund into an ‘emergency fund’ for residents to apply for non-lethal deterrents after suffering livestock loss from predation, and planning for future outreach and engagement around the AWPP. A new webinar series, ‘Bea-vallis’ took place in Spring 2022 and the Environmental Project Coordinator presented a brief online presentation on beaver management in Benton County. We continue to maintain and enhance a “Lending Toolbox”

<https://www.co.benton.or.us/awpp/page/lending-toolbox>) to give county residents the opportunity to try non-lethal deterrent devices and materials before purchasing them for themselves.

Grant Program Results

In 2022, the AWPP awarded **\$25,595.07 in grants to six Benton County farms** for non-lethal wildlife deterrence projects, including one emergency award for fencing to a farm experiencing predation issues. Two emergency projects are ongoing and will address poultry losses in winter 2022-23. Of the six grants awarded during the competitive round, four successfully completed their projects. Two projects were not completed, with one citing weather and ground saturation issues. This applicant plans to re-apply during the next grant cycle.

New 'Emergency Grants'

The AWPP Committee discussed and came to the consensus to make non-allotted grant funds and the beaver-specific funds part of a larger 'Emergency Fund' after being contacted by several residents who lost poultry, ungulates or other livestock to predation in 2022. This new Emergency Grant will enable the majority of funds to be used biennially even if the regularly-awarded projects are not completed or come in under budget. There are currently **three** ongoing emergency grants: one for goats and sheep, one for poultry, and one for a farm with a diversity of livestock.

Appendix III of this report contains an updated summary infographic of the program's impact since inception for local farms and their livestock.

While there were no beaver-specific projects that requested funding in 2022, extensive communication with local watershed districts, NMFS, ODFW and USDA has resulted in a better and improving communication network for local 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. However, this is a continually evolving process.

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.

4. Proposed Grant Cycle Changes for 2023 and Beyond

The AWPP Coordinator spoke with multiple grant recipients opportunistically to discuss the current grant timeline. All of these farmers noted that summer was a challenging application period because of the busy outdoor season. Furthermore, fall is not an ideal implementation time because of inopportune weather (rain, mud and cold) and dwindling light availability.

In fall 2022, the AWPP Committee discussed this feedback and recommended shifting the annual grant timeline. The hope is to improve the AWPP experience for applicants by accommodating for:

- 1) A longer and more accessible application period;
- 2) A longer project implementation/installation period during spring and early summer; and
- 3) A more flexible site visit window, which still ensure that applicants are able to claim reimbursement by the end of each fiscal year.

This change is proposed to start in 2023 and will ultimately only delay the application window by 30-60 days its initial year and normalize thereafter. The current and proposed timelines for AWPP grants are shown in the tables below:

CURRENT TIMELINE

January 31	Annual evaluation reports due for past recipients
July 6	General grant application window opens
July 31	General grant applications due
Aug 10	AWPP Committee reviews grant applications
Sept 1	General grant awards announced
Sept - Dec	General grant project implementation period for awardees
Dec – Jan	AWPP Coordinator onsite visits to verify eligibility for reimbursement

Jan – June	Reimbursement period
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PROPOSED TIMELINE (Starting 2023)

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

5. Education and Outreach

The 2021-2023 biennial AWPP budget included \$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 will be represented with a table at OSU Extension’s 2023 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 www.co.benton.or.us/awpp.

Outreach Successes in 2022

The AWPP webpage has had significant updates since early 2022 to include more information, data and reference materials for those interested in the program or experiencing predation issues. In 2023, grant application materials and website information will continue to be updated and improved along with the move to Benton County’s new website format.

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 2022, we added the national bestseller “Eager: The Surprising, Secret Life of Beavers and Why They Matter” by Ben Goldfarb to our Lending Library.

As additional outreach occurs, the trajectory of annual applications is projected to increase. To encourage a positive experience for all program applicants, the AWPP Committee voted to provide non-successful applicants with one NiteGuard™ solar powered light (estimated value \$26) as a consolation award which will

hopefully help to continue dialogue between the AWPP and farmers, and encourage applicants to re-apply in subsequent grant rounds.

Lastly, the Coordinator designed and purchased fifty (50) AWPP yard signs that will be distributed free of charge for program awardees to display. Awardees have noted that neighbors often ask about their new fences or other structures funded by AWPP, and these placards provide a way for passers-by to identify AWPP projects around the County and to learn more. The 50 placards are available for past recipients and should be adequate for several years of grants moving forward. In the future, these yard signs will be offered to grant awardees during the site visit that takes place before reimbursement.



Looking forward, outreach efforts anticipated for 2023 include:

- 1) An AWPP/Environmental Projects booth at the Benton County Fair;
- 2) Hosting a speaker at the Small Farms Conference in February 2024;
- 3) Onsite visits to Corvallis and Philomath Farmers' Markets by the AWPP Coordinator in summer 2023 to inform vendors of the AWPP program; and
- 4) A promotional film about the AWPP to be produced in 2023, funded by a grant through the Animal Welfare Institute.

Additional Funds from USDA

In summer 2022, the AWPP coordinator was notified by USDA Wildlife Services regarding newly-available legislative funds intended for Oregon counties to use for beaver-related conservation, education, and supporting non-lethal co-existence measures. Although the turnaround to apply and receive funds was very brief, Public Works was able to apply and was awarded approximately \$14,000. Specifically, these funds aided in the purchase of a pond leveler kit and expert assistance for future installation as needed; a beaver plush animal to use for tabling events; promotional pencils regarding AWPP beaver-specific public funds; a DJI Mavic 3 small Unmanned Aerial System (sUAS) or small drone, and funding for one Public Works employee to take

the FAA sUAS pilot certification exam. The drone is to be used for survey in areas with proposed Public Works projects or existing infrastructure where beaver or other wildlife issues can be proactively planned for, and can also be used for other environmental projects requiring aerial survey and assessment, including collaboration with other Benton County departments.

The AWPP Coordinator successfully completed the FAA sUAS pilot exam in early February and is in the process of registering the Mavic in preparation of training flights and missions beginning in Spring-Summer 2023. The USDA anticipates having additional funds available in future years and the AWPP looks forward to strengthening this collaboration between USDA and associated partners in non-lethal management of beavers in urban areas, private property and around public infrastructure.

6. Grant Program

2022 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 seems to be at 50% or less despite strong communication efforts by the AWPP Coordinator. By the January 2024 reporting period, the AWPP Coordinator plans to have online reporting in a simplified, online survey format that should hopefully reduce effort from grantees and increase compliance. Reports are important as they allow for quantitative assessment of the effectiveness and benefits of non-lethal deterrent systems. Without a higher percentage of farms reporting, it is difficult to know whether grant awardees experienced losses over the last reporting period. However, all past grant awardees have been positive about their deterrents and experience and in many cases have referred friends or neighbors to the program.

2022 Awards

Of the \$40,000 allocated for AWPP grants in the 2021-23 biennium, \$39,950 have been utilized or are pending reimbursement for emergency grants, leaving an estimated available biennial balance of \$50.00 at this time which will likely be used for outreach.

To date, no beaver-related AWPP applications have been submitted for 2022, an area where future outreach and education might solicit more public awareness and subsequent applications. Additional recent communications and collaboration with local and state agencies, including local watershed districts, USDA, ODFW and NMFS, should help bolster awareness.

The average property size for 2022 awardees was 8.27 acres, ranging from 1- 24 acres. Notably, all farm operations provided supplemental income. Livestock proposed for protection in 2022 included sheep, goats, cattle, chickens, ducks, geese, turkeys and alpacas. Applicants also farmed fruit and nut trees, beehives, berries and other produce. At least two applicants had farm stands or participated in local farmers' markets.

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

Farm	Location	Size (Acres)	Funded Non-lethal Deterrents	Livestock Protected	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
6	Philomath	24	Livestock guardian dogs, lights, fencing	Sheep, goats, alpaca	\$5,000.00

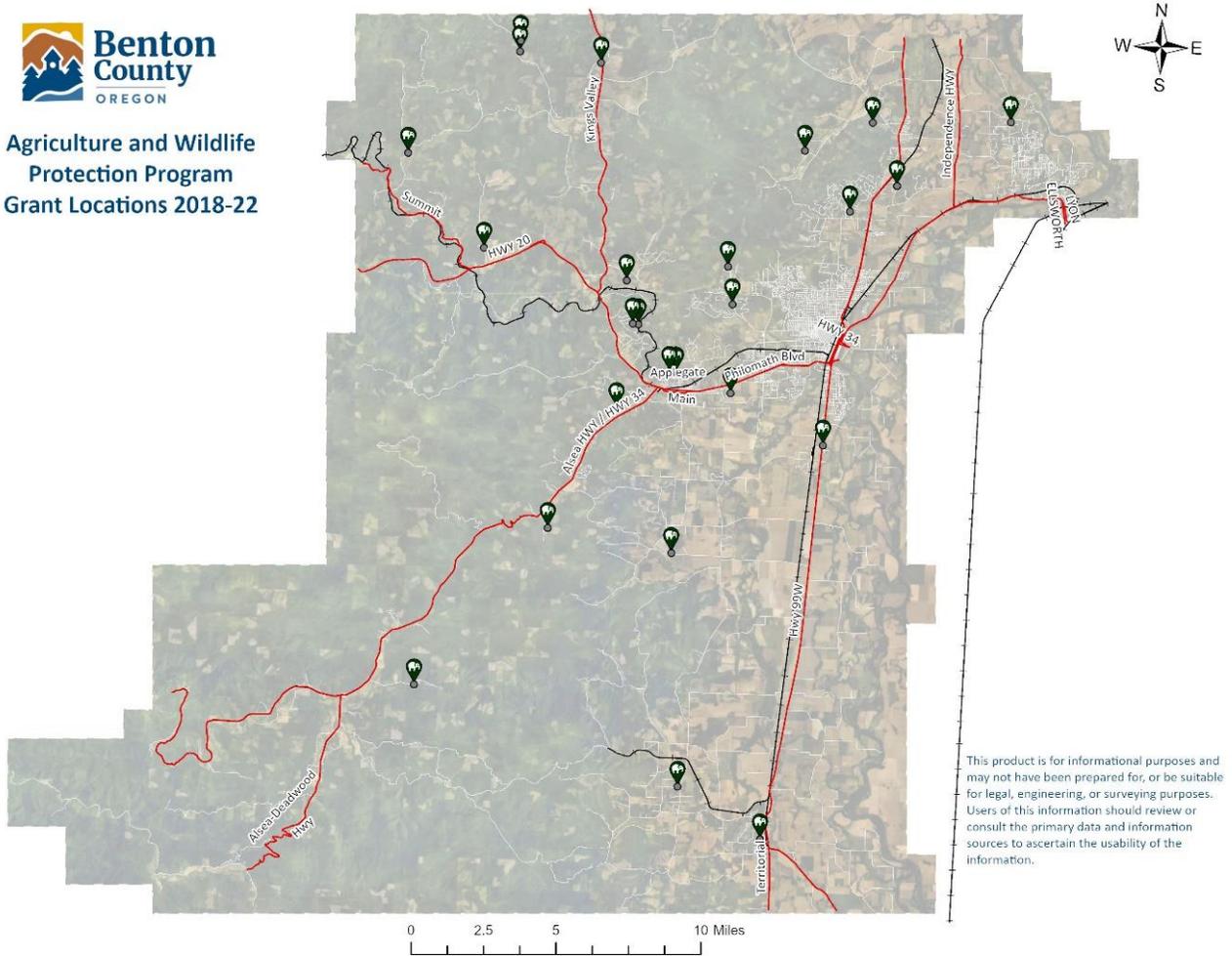
Table 2. Three Benton County farms are working on Emergency non-lethal deterrent projects to be completed by summer 2023.

Farm	Location	Size (Acres)	Funded Non-lethal Deterrents	Livestock Protected	Funded Amount
1	Philomath	24	Fencing, Livestock guardian dogs	Alpacas, goats	\$4,503.00
2	Corvallis	9.5	Chicken coop area fencing, poultry netting, hawk netting, electrified fence	Poultry, ducks	\$469.00
3	Corvallis	1.2	Fencing, hawk netting	Poultry	TBD, up to \$5,000

The map on the following page shows the physical locations of past grant recipients between 2018 and 2022. The operations benefitting from this program are scattered across the County, but you may notice clusters of pins in some locations. This is due to word of mouth between neighbors and operators, which we believe has had the most success out of all the outreach methods. Appendix I is a detailed account of past awards from 2018 to 2021 and Appendix II includes testimonials from the 2022 grant recipients.



**Agriculture and Wildlife
Protection Program
Grant Locations 2018-22**



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 <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/>

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.
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http://faculty.nelson.wisc.edu/treves/pubs/Treves_Krofel_McManus.pdf

Appendix I: Past Award Summary Tables

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	Alea	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 ¹ , Hazelnuts	\$4,768

¹ The sheep were sold off in the middle of 2019.

Appendix II: Recipient Feedback about the AWPP

The following testimonies from 2022 annual reports and awards illustrate the experiences that Benton County farmers are having as they implement their AWPP-funded non-lethal deterrents 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"



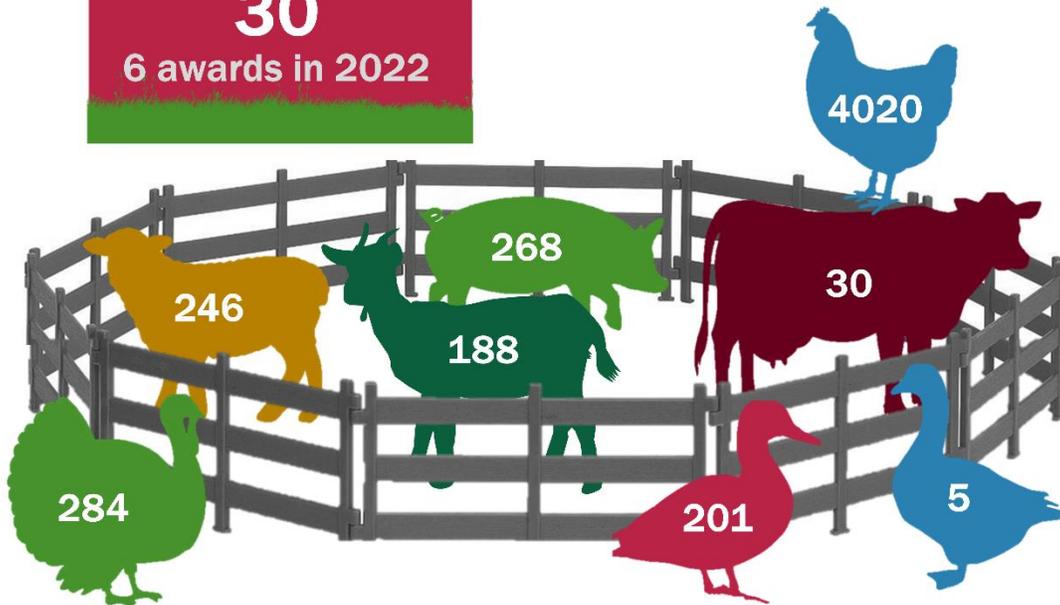
\$91,954 in non-lethal wildlife deterrent grants awarded to Benton County farmers!

Total AWPP Awards since 2017:

30

6 awards in 2022

**Average Farm Size:
19.7 acres**



4,430 livestock protected...and counting!

Learn more at www.co.benton.or.us/AWPP