

DISTRICT DIRT

PETROLEUM COUNTY CONSERVATION DISTRICT

Summer 2025

Local Common Sense Conservation

Photo Credit: Reba Ahlgren



The Petroleum County Conservation District encompasses the county's 1,071,000 acres and the board is comprised of five county elected officials and two appointed city officials. This board is tasked with the education and conservation of the county's natural resources.

The Petroleum County Conservation District through education, outreach and program and project development works hard to put local common sense natural resource conservation on the ground and to educate the current and future producers and landowners on natural resource conservation all while helping them to continue sustainability in their businesses.

The Petroleum County Conservation District regularly partners with other conservation districts, watershed groups, stakeholder groups, state and federal agencies, as well as some NGO's and nonprofits to put conservation on the ground.



Ranching for Rivers - Funding Available

The Montana Association of Conservation Districts (MACD) in partnership with the Missouri River Conservation Districts Council (MRCDC), DNRC Rangelands, and DEQ is currently offering a 50% cost-share to landowners looking to implement voluntary ranch management practices that promote riparian vegetation and improve stream quality.

Ranching for Rivers is a cost-share program that supports landowners and local partners in implementing riparian grazing and restoration projects that enhance stream health, improve water quality, and increase the resilience of working lands across Montana.

Ranching for Rivers provides 50% cost-share funding to support landowners in implementing riparian fencing, off-site water infrastructure, and managed

grazing systems. The program promotes healthier pastures, improved water quality, and long-term land stewardship. Conservation Districts are also available to assist with planning, permitting, and project implementation.

While accepted on a rolling basis, applications are due by August 12, 2025, to be reviewed in the next round of funding. Funded projects must be completed by December 31, 2025. More information and applications can be found by going to the MACD website, macdnet.org/programs/ranching-for-rivers.

Molly Masters
Missouri River Conservation Districts Council



SNEAK PEEK OF WHAT'S INSIDE

Ranching for Rivers	1
Virtual Fencing	2-3
MT Ranch Bootcamp	4
Varmint Control Pt 3	5
Spring Events	6
District 411/Rentals/Notices	7
Contact Info/Staff & Board	8



**Petroleum County
Conservation
District**

VIRTUAL FENCING

Written by Dr. Sam Wyffels, MSU Extension Beef Specialist

The landscape of modern ranching is constantly evolving. Producers are facing challenges from labor shortages and rising costs to the need for improved grazing management. Fortunately, innovations in precision agriculture are offering new tools to meet these demands. One of the most promising advancements is virtual fencing, a technology poised to help manage livestock and land.



What is Virtual Fencing?

Virtual fencing is a system that utilizes GPS technology to manage livestock movement without the need for physical fences. Instead of posts and wire, cattle are fitted with collars that provide an audible warning and, if necessary, a mild electrical pulse to create an invisible boundary that can be managed from a smartphone or computer.

How it Works:

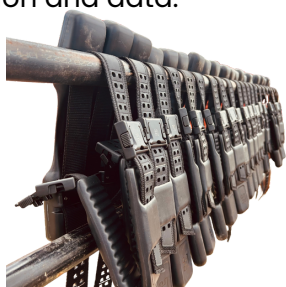
The technology is surprisingly simple for the animal to learn. Cattle are contained within a "safe zone" where no cues are given. As an animal approaches the virtual boundary, the collar emits a distinct audio tone. If the animal continues, it receives a mild electrical stimulus, encouraging it to turn back. Most animals quickly learn to respond to the audio cue alone. The system is designed as a one-way gate, allowing an animal that crosses the boundary to return without a shock.

The system consists of 3 main components:

The collar: Worn by the animal, this device contains a GPS receiver, stimulus unit, and a power source, which can be a replaceable battery or solar panel.

The Communication Network: This transmits data between the collars and the software, using either a base station installed on the property for areas with poor cell service or existing cellular networks.

The Software: An app on your phone, tablet, or computer acts as the control center, allowing you to draw, move, and schedule virtual fences while monitoring herd location and data.



Key Advantages:

The benefits of adopting virtual fencing are numerous and address many of the challenges facing today's producers:

- **Ultimate Flexibility:** Draw, move, or remove fences in minutes from your phone to adapt to changing forage or weather conditions.
- **Improved Grazing Management:** Easily implement complex rotational or strip grazing to enhance pasture utilization and reduce the labor associated with moving cattle and setting up temporary fences.
- **Protect Sensitive Areas:** Exclude cattle from riparian zones, wetlands, or post-fire landscapes without the high cost of permanent fencing.
- **Enhanced Monitoring & Reduced Labor:** Track your herd's real-time location and use activity tracking to monitor their well-being, saving time on locating and gathering cattle.



Challenges and Considerations

While the benefits are clear, there are important factors to consider before adopting a virtual fencing system:

- **Upfront Cost & Fees:** The initial investment for collars and base stations can be significant, and most systems have recurring annual software fees.
- **Connectivity is Key:** The system's reliability depends on connectivity, and rough topography or dense tree cover can interfere with signals.
- **Animal Management:** Cattle require a training period of a few days, and animals must be handled to replace batteries or replace lost collars.
- **Not a Perfect Barrier:** The system will not contain 100% of the herd all the time, and physical perimeter fences are still necessary, especially along highways.

The Players in the Game

Several companies offer virtual fencing solutions, each with unique features:

Company	Network	Power Source	Unique Feature
Vence	Base Station	Replaceable Battery	Owned by Merck Animal Health Replaceable Battery
Nofence	Cellular	Solar	Has a goat/sheep option
Gallagher	Base Station or Cellular	Solar	Flexible network options
Halter	Base Station	Solar	Directional cues (left/right)

Costs can vary widely and often depend on the company's sales structure (lease/subscription model vs. purchasing equipment), how many collars and/or towers are needed to provide service, so it's essential to contact vendors directly for the most up-to-date information.



Desi King unboxing and lining out collars

Is Virtual Fencing Right for You?

To determine if this technology is a fit for your operation, ask yourself:

- What is my primary goal? (e.g., reducing labor, improving grazing)
- What is my terrain and cell coverage like?
- Am I and my team comfortable learning and relying on new technology?
- How does the 5-year total cost compare to building and maintaining physical fences?

Virtual fencing is a powerful management tool that offers unprecedented flexibility and efficiency. While it may not be a complete replacement for physical fences, it represents a new frontier in smart ranching, empowering producers to meet the challenges of today and tomorrow.

Photo Credits: Desi King (Winnett, MT)

MONTANA RANCH BOOT CAMP

WRITTEN BY JEN SOLF, WINNETT ACES

WINNETT, MT – WHAT DOES IT MEAN TO BE “RANCH READY”?

For the participants in the first-ever Montana Ranch Boot Camp, held May 13–16, 2025 in Petroleum County, it meant getting their boots dirty, asking questions, learning from neighbors, and gaining confidence—one fence post, cattle move, and shared meal at a time.



“We often assume people already know how to do things like fix fence or drive a gravel road safely—but the truth is, everyone starts somewhere,” said Haylie Shipp, Communications Director for the Ranchers Stewardship Alliance. “This camp gave participants the space to learn without judgment, to ask questions, and to build real skills in a welcoming and working environment.”

Participants included college students from the Montana State University Dan Scott Ranch Management Program, apprentices in the Quivira Coalition’s New Agrarian Program, and interns in the MT DNRC Working Lands Program. Over the course of four days, they explored fencing, grazing systems, irrigation, fire and vehicle safety, water systems, cattle handling, and branding—guided by ranchers, conservation professionals, and educators who generously opened their gates and shared their time.

The first Montana Ranch Boot Camp was a true success,” said Laura Nowlin, Executive Director of Winnett ACES. “Participants immersed themselves in skill-building, while generous ranchers shared their knowledge with pride and purpose. It was more than a training—it was a meaningful exchange between generations.”

“

*Building Confidence,
Skills, and a Sense of
Belonging*



HELPING LEAD THE FUTURE AG LEADERS

Led by Winnett ACES in collaboration with the Ranchers Stewardship Alliance, Ranch Boot Camp is a new hands-on experience designed to meet beginning ranchers and agricultural students where they are. That might mean someone still deciding if agriculture is the right fit, someone new to the industry who didn’t grow up around livestock, or even someone raised on a ranch who just didn’t get the chance to learn every skill along the way. And that’s okay.

That exchange left a lasting impression. “Being part of Ranch Boot Camp was truly inspiring,” said Hayden Vandenberg, Northern Plains Manager for the Quivira Coalition’s New Agrarian Program. “The community opened their hearts, time, and knowledge so freely. It reminded me that this work is about more than skills—it’s about people showing up for each other.”

The 2025 event was made possible by sponsors including Central Montana Cattle Women, Montana Farmers Union, Fergus/Petroleum County Farm Bureau, Montana Stockgrowers Foundation, North 40 Ag, MSU Dan Scott Ranch Management Program, Ag West Farm Credit, Montana Grazing Lands Coalition, Petroleum County Conservation District, Ballyhoo Printing & Design, Agri Best Feeds, Valley County Conservation District, and the World Wildlife Fund. Partners included the Montana Department of Natural Resources and Conservation, Quivira Coalition, MSU Dan Scott Ranch Management Program, and the Ranchers Stewardship Alliance.

Plans are already underway for the next Montana Ranch Boot Camp, which will be hosted in 2026 by the Ranchers Stewardship Alliance in Malta, Montana. The camp is set to rotate between RSA and ACES in future years—bringing practical education and community connection to the next generation of ranchers across the Northern Great Plains. For more information or to support future events, visit www.winnettaces.org or www.ranchstewards.org.

VARMINT CONTROL: PART 3



5 TIPS FOR MANAGING NUISANCE RACCOONS

Stephen M. Vantassel, Vertebrate Pest Specialist, MT Dept. of Ag.

*Cardboard
Trap Cover:
Cardboard
can make an
inexpensive
disposable
cover.*



Raccoons, aka the masked bandit, is essentially a small bear from a behavioral perspective. Raccoons eat a wide variety of foods, are superb climbers, and incredibly strong. These abilities allow raccoons to cause a great deal of mischief for landowners, such as breaking into attics, raiding chicken coops, tearing up lawns in search of invertebrates, and feeding on crops. This article will discuss several ideas to help you manage conflicts with raccoons.

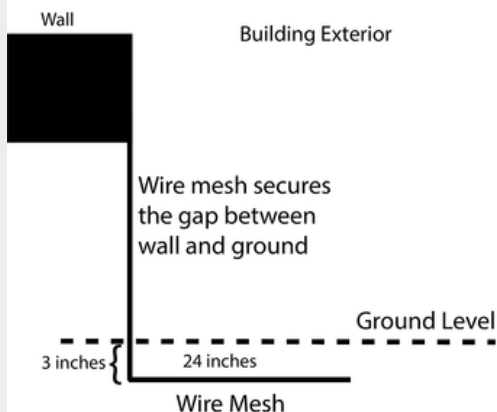
Tip #1. Keep structures in good repair. Raccoons, like all animals, need shelter to protect themselves against the Montana climate. Your home, outbuilding, deck, or shed provide excellent shelter for raccoons in need of a home. Protect passive air vents with $\frac{1}{4}$ -hardware cloth attached with screws. Install protective skirts around decks and sheds to prevent raccoons from gaining access. Cap chimneys with manufactured stainless-steel caps.

Tip #2. Act quickly, when raccoons have taken up residence in a building. Letting raccoons stay in a building can result in damage to the structure, insulation, and most importantly the presence of raccoon toilets. Raccoons like to defecate in a single spot which are called toilets. Over time, these toilets can become quite large. Aside from the smell, the droppings are likely to contain a parasite called raccoon roundworm, which if ingested can cause serious medical issues. Unfortunately, there are no disinfectants available to kill the worm's eggs. Contact me and/or CDC.gov for additional advice on cleaning up raccoon toilets.

Tip #3. Locate cage traps carefully. Sometimes the simplicity of cage traps lure people into thinking that trapping is little more than throwing bait in the cage and setting the trap. While cage trapping is not rocket science, you do need to consider details. For example, most cage traps use 1-inch x 1-inch mesh which is large enough for a raccoon to reach their arm through. That means anything within about 6 inches of the cage can, and will, be grabbed and destroyed by a trapped raccoon. Many people have seen their joy of catching a raccoon turn to sorrow when they realize that the trapped raccoon destroyed their siding, roof, telephone cable, turf, and more because they neglected to consider what would be in the trapped raccoon's reach. Make sure you consider what is below, beside, and above a cage trap before placing it.

*Raccoon Proof Exclusion:
Using hardware cloth to prevent
animals from crawling under
decks*

Raccoon-Proofing A Structure



Tip #4. Cover at least 50% of your cage trap. Covering the bait half of your cage trap accomplishes two tasks. First, it provides the raccoon a place to get out of inclement weather or hot sun. Contrary to popular opinion, cage traps are not automatically humane. The cover improves the humaneness of the trap. You can wire cardboard to the trap or drape a sturdy cloth over the end anchored with a couple of bricks. The second advantage of the cover is that it provides you a way to approach the trap without being seen if you happen to catch a skunk. Many people are surprised to find a skunk in a trap set for a raccoon. A cover makes it easier for you to resolve the problem.

Tip #5. Use the right bait. As noted above, raccoons eat almost everything. But which baits are the best? While the "best" has not been determined, effective baits include, fried chicken scraps, sardines in oil, strawberry sugar wafers, oil of anise, cat food (moist or dry), molasses, and honey. Items can be used in combination. If domestic cats are around, use only sweet and sugary baits to reduce the likelihood of catching cats. Keep in mind that even with the best bait, you need to place the trap in proximity to the raccoon's den or trail so it can be easily found.

*Cage mesh labelled:
Raccoons can reach
through 1-inch x 1-
inch cage mesh.*



Stephen M. Vantassel, Vertebrate Pest Specialist, Montana Department of Agriculture,
Lewistown, 406-538-3004 svantassel@mt.gov

Images. All images by Stephen M. Vantassel, Montana Department of Agriculture

PETROLEUM COUNTY CD HOSTED EDUCATIONAL EVENTS IN JUNE



Virtual Fencing Workshop

On June 10th, the Virtual Fencing Workshop took place at the Petroleum County Community Center. This workshop provided an overview of the virtual fence system, covering the functionality of livestock collars, the GPS system, and maintenance requirements. Four representatives from Halter, Gallagher, Vence, and NoFence delivered brief presentations (2 virtually and 2 in person) showcasing their respective virtual fencing systems. The main presentation was led by Dr. Sam Wyffels, Assistant Professor and Beef Specialist at MSU Extension, Montana State University. Additionally, ranchers who actively utilize a virtual fence system, participated to share their local insights. Halter generously sponsored a catered meal from the Winnett Bar and Grill.



Ladies Day on the Range

The annual Ladies Day on the Range event was held on June 11th on Charlie and Reba Ahlgren's ranch, NE of Winnett. Melodie Snyder and Olivia Wood, local Food Coordinators from Abundant Montana, discussed their efforts to increase the presence of Montana-grown food on every plate in the state. Abundant Montana aims to boost local food consumption. They connect food and farm businesses with new consumers and in-state market channels. Kendall Morgan with Winnett ACES conducted a hands-on presentation on Vermicast, demonstrating how to create a bucket Vermicast system using worms, water, newspaper, coffee grounds, and soil. To conclude her presentation, Kendall demonstrated how to make a nutritional Vermicast extract from the final product, which can be sprayed on plants to help them thrive. Finally, Dr. Rebecca Woodford, a local veterinarian, addressed topics such as cattle parasites, reproduction, breeding, and managing calf scours. All in all, it was a beautiful day, with 25 ladies partaking in the event.



Both workshops and events helped foster new connections among attendees while highlighting the significance of managing our native rangelands and livestock. Our goal with these workshops is to ensure that soil and water resources remain plentiful for future generations, continue sustainable living for future generations, while also addressing the various challenges faced by ranchers and farmers.

Announcements & Notices

DISTRICT 411

310 PERMITS are required:

If you are planning any project including the construction of new facilities or the modification, operation, and maintenance of an existing facility that may affect the natural existing shape and form of any stream, its banks or its tributaries. Any private entity or non-governmental individual that proposes to work in or near a stream on public or private land must obtain a 310 permit prior to any activity in or near a perennial stream.

When in doubt please call the Conservation District Office @ 429-6646 ext. 104 for more information.

PCCD Office Hours:
Mon thru Thur, 10am-5pm

UPCOMING MEETINGS AND EVENTS:

SATURDAY, AUGUST 16:

PASTURE GOLF, WINNETT RODEO ARENA, 2:00PM SIGN UP
3 APPLICATORS CREDITS

WEDNESDAY, SEPTEMBER 10:

APPLICATORS CLASS, WINNETT PCCC, 1:00-4:00PM
3 APPLICATORS CREDITS

WEDNESDAY, SEPTEMBER 17:

HOMESTEADING WORKSHOP - SOURDOUGH, WINNETT PCCC, 12:00-2:00PM
AS MUCH AS YOU KNEAD - AMANDA FLANN

7TH ANNUAL WINNETT ACES PASTURE GOLF TOURNAMENT

**SATURDAY
August 16th
@ 3PM**
Sign up at 2pm
**AT THE RODEO ARENA
NW OF WINNETT
\$20 ENTRY FEE**

BBQ at 55 Main after
Pasture Golf
(Sponsored by PCCD & ACES)

Teams will be drawn
after sign up

Hope to see you there!
Jam Session at 55 Main
to follow!!

PEST CONTROL CLASS

BY MONTANA DEPARTMENT OF AGRICULTURE
WEDNESDAY, SEPT. 10, 2025
1PM - 4PM *In Winnett*
THE PETROLEUM COUNTY COMMUNITY CENTER
207 EAST MAIN STREET
WESLEY ROOM

NOTE:
You do **NOT** need to have
an Applicators License to attend
this class. **Open to all!** Come and
learn about effective pest control
methods.

THIS IS A **FREE** CLASS.
APPLICATORS WILL
ALSO RECEIVE 3 CREDITS
TO GO TOWARDS THEIR
APPLICATORS LICENSE!

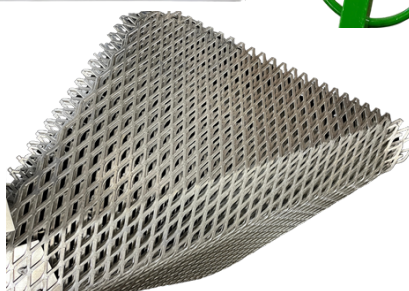
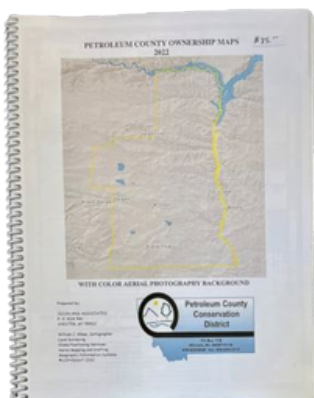
3 CLASSES (3 CREDITS TOTAL)
• COYOTE CONTROL
• VOLE CONTROL
• BAT CONTROL

PRESENTER:
Stephen M. Vantassel, MT Dept. of Ag

MONTANA STATE UNIVERSITY | EXTENSION | MONTANA DEPARTMENT OF AGRICULTURE | PETROLEUM COUNTY CONSERVATION DISTRICT

For Questions call the PCCD at 406.429.6646 Ext 104

Items for Purchase or Rent at the PCCD



FOR RENT

Tree Planter
Fabric Layer
Level & Tri-pod
Flow Meter
Rangeland Monitoring Bag
No-Till Drill
EZ Ject (woody invasive species control)

FOR SALE

2023 Land Ownership Maps
Fabric rolls (by roll/foot, depend on size) & fabric staples
Wildlife Escape ramps
Sage Grouse Fence Markers
Gate Closers

****Call the CD Office for availability of all items. Prices are subject to change****

The public is always invited to the Conservation District meetings. Regular meetings are held each month at the USDA/PCCD office up on the hill. Meeting time is usually the last Wednesday of the month at 5:00 p.m. Look for notices posted around Winnett.

All PCCD and NRCS programs are offered on a nondiscriminatory basis without regard to race, color, nation of origin, religion, sex, age, marital status or handicap.

Petroleum County Conservation District Board

JC King - Chairman, Elected Supervisor
Brenda Brady - Vice-Chairman, Elected Supervisor
Laura Kiehl - Treasurer, Elected Supervisor
Ralph Corbett - Urban Supervisor
Rodney Rowton - Rural Supervisor
Butch Arthur - Urban Supervisor
Tye Lund - Supervisor

VACANT - Associate Supervisor

PCCD – NRCS Office Staff

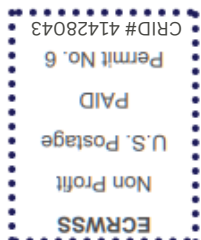
Trish Smith - PCCD Administrator
Katie Lund - PCCD Fiscal Manager
Loyd Bantz - District Technician
Reba Ahlgren - NRCS District Conservationist
Mike Lucas - NRCS Supervisory District Conservationist
Allison Martin - MWC Coordinator
Molly Masters - MRCDC Coordinator
Brent Smith - CEMIST Program Manager
Skylar Stenson - Conservation Technician
Lesley Rolls - Water Conservation Program Manager

If you are interested in joining the PCCD Board, have rental/sale or 310 permit questions, please reach out to the CD:
petroleumcd@macdnet.org, 406-429-6646 ext 104

For more up to date information on events and meetings please check out the District's:

Facebook page @ <https://www.facebook.com/Petcocd55> OR Website @ PetroleumCD.org

Postal Patron



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