

LIVESTOCK PREDATION PREVENTION PROJECT (LPPP)

ELECTRONET PENNING FOR LIVESTOCK PROTECTION

As tested by Manitoba producers cooperating with the Manitoba Livestock Predation Prevention Pilot Project



mbbeef.ca | 204-772-4542

Livestock producers who are concerned about coyotes, wolves, or bears attacking their sheep may want to consider a portable ElectroNet fence to keep unwanted predators away from their livestock. Project pen testing was completed on nine Manitoba farms during the years 2021–2023. Results indicate that ElectroNet penning was indeed effective at stopping predator attacks on livestock.

Background:

ElectroNet is a poly wire netting fence system that is portable and designed primarily for smaller livestock such as sheep. The poly strands are mixed with fine stainless-steel conductors that carry an electric fencer charge and hold back livestock on the inside and predators on the outside. Fiberglass stakes are included in the packages and woven into the mesh. The stakes can be pushed into the ground for straight fencing, and extra corner anchors are included to keep the fence tight at the turns. Producers can either charge the fence with a solar and battery powered fencer or incorporate the ElectroNet into the general farm electric fencer which is run off electricity.

Pre-planning by means of mowing prior to fence erection, and powerful fencers result in greater electric shocks and better sheep and predator control.

ElectroNet Livestock Penning

Predators: Wolf, coyote, cougar, bear, fox, lynx

Livestock: Sheep and small ruminants. Special poultry netting with smaller wire spacing can be purchased for poultry. Not for cattle as it is not generally tall enough to avoid reach over grazing and pulling down.



ElectroNet Penning Statistics:

1. Tested on 10 commercial Manitoba farms, all of which has sheep, but 4 also had beef cattle.
2. Average head protected by pen: 118 females.
3. 100% of producers agreed that ElectroNet reduces predation.
4. 10 minutes average per 164 foot long roll is what was needed to move pens. Most pens consisted of 7 rolls and covered about 2.3 acres.
5. 89% of producers had the fence stay upright for their desired season.
6. 80% of cooperators agreed that use in combination with guardian dogs make an almost ideal predator reduction system.
7. 100% of cooperators would repurchase ElectroNet in the future.



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Pilot Project Costs of building 2 acre portable ElectroNet enclosure (2022)

Item	Cost
ElectroNet 164 foot by 35 inches tall \$194 per roll X 7	\$1,358
Speedrite S1000 Solar energizer that includes battery, solar panel and energizer	\$462
Misc. ground rods, wire	\$100
Total without labor	\$1,920

Design of Pen:

1. ElectroNet pens are intended as a short-term penning system that can be moved to multiple locations. As such you should plan out your grazing system, or land tract in a way that provides the ideal combination of grass for pasture rotation and rest, water sources, and access to perimeter electric wire energy.
2. Mow or mulch a fence alley where you intend to put up the ElectroNet in the coming days. During fast growing conditions, it should be right before erecting the fence. During slower growing periods pre-mowing can be earlier.
3. Moving the fence more often is more labor, and our cooperators averaged about 10 minutes per 164 foot roll. However moving the fence more often provides better forage and grazing quality and regrowth potential. Moving more often leaves more human scent which is a significant part of a predator risk strategy.
4. Some producers set up ElectroNet planned pastures, with wooden corner posts that stay in place over time. This early planning takes advance labor, but will save time in the long run.
5. Additional predator mitigation is always better. Livestock guardian dogs were highly rated additions to ElectroNet pens, and the addition of the dog was usually found to drop predator incursions to zero. Adding a Foxlight which emits a bright light show at night will add temporary additional protection during peak predator risk seasons.

Limitations of Electronet Penning:

- ElectroNet penning success depends on the strength of the electric shock. Producers who erect ElectroNet in deep grass, or have grass grow into the net will have reduced shock capacity and reduced usefulness.
- ElectroNet should always be connected to a strong electric energizer. This will counteract inevitable grounding out. Strong fencers powered by 220-volt current at the yard and fed through a hi-tensile insulated perimeter fence is an ideal system. If remote fencing is the only option, choosing the largest solar and battery fencer is wise. A low voltage fence could allow for livestock escapes which could have fatal consequences for loose sheep.
- If electrified wires ground out in manure, mud, debris or water, the entire fence will have reduced power or no power and be completely ineffective.
- Sheep and small ruminants are the best fit for this fencing system. Cattle and other tall animals may reach over the fence to graze and start pulling and damaging the fence. Horned animals may occasionally get caught in the netting and cause a lot of fence damage and create stress on animals.
- ElectroNet is designed for growing season use only. Winter use of this product has two significant problems. Heavy snow will flatten ElectroNet, so use at the ends of the season can be risky. Also, as the fence is snowed under in fall, the fence may freeze in and be unretrievable over winter.
- ElectroNet is a poly product which will eventually break down in sunlight and natural environmental conditions. When not in use it should be rolled up and stored out of light. This will greatly extend product life and improve the return on investment.

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Project Participant Feedback

"The ElectroNet pen worked excellently. Upon expecting an early snow we took the net down and the same night we had the first predator-caused mortality of the pasture season. Not sure if it was a freak incident or what, but it sure made us appreciate the ElectroNet."

- Dauphin sheep producer

"I love the ElectroNet, easy to install and move, it is an ideal combination with livestock guardian dogs."

- Brandon sheep producer

"Good! But not a long-life product. Not well suited for rough terrain. But in 2022 it came in very useful as a temporary pen to hold the sheep when a normal pasture was flooded."

- Fraserwood sheep producer

"ElectroNet is useful... but the base needs to be prepared, get rid of the rocks, stumps and underbrush."

- St. Laurent sheep producer

"Very good product, but the solar fencer provided in package needed more power, ElectroNet around compost piles is a good idea too!"

- Ste. Anne sheep producer

For more information on the Manitoba Livestock Predation Prevention Pilot Project and other Risk Mitigation Practices please visit <https://mbbeef.ca/>



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