

LIVESTOCK PREDATION PREVENTION PROJECT (LPPP)

GAME CAMERAS ROLE TO REDUCE LIVESTOCK/PREDATOR INTERACTION

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, bears, cats or foxes attacking their livestock may want to consider the use of game cameras to document the identity and behavior patterns of predators. Game cameras have incredible technology to capture photos day or night of predators or livestock in order to better manage hunting, trapping and hazing of predators.

Background:

Predators exist in nearly every pasture and occasionally pass through almost every livestock operation in Manitoba. Livestock producers who know which predator is travelling through, and what time of day are much better equipped to either hunt, trap or haze the predator before an incident occurs. Game cameras can reveal photos day or night of predators. Locating cameras at watering sites, trails, or livestock mortality sites can increase likelihoods of photos.

Game Camera facts:

1. Tested on 23 commercial Manitoba farms.
2. 20 beef farms, 3 sheep farms.
3. 20 models utilized the cellular LTE system to relay photos to the producer.
4. 3 models were simple memory card storage for the photos.
5. 73% of producers received photos of predators taken by the game camera.
6. 68% of producers did not move the camera through the season of use.
7. 42% of producers believed that the game camera aided in predator removal.
8. 78% of producers would replace the camera if lost.
9. 58% believe that the extra cost of LTE service is worth the additional cost.



Game Cameras as a Predator Risk Mitigation Practice

Predators: Wolves, coyotes, foxes, bears, cougars

Livestock: All species of livestock

Extra

Features: Game cameras can be set to take timed photographs of water troughs for water monitoring.

Game cameras can be set off roadways and field entrances to monitor vehicle and human traffic.

With LTE service photos can be accessed from smartphones or home computers.



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Pilot Project costs of installing LTE solar powered Game Cameras (2021)

Item	Cost
Ridgetec Dual Game Camera with Remote solar panel, battery, charge controller, and Yagi hi gain antenna antitheft cable, and steel protection box.	\$1,033
Spy Point Force Pro with 12ft power cable	\$222
Monthly upload of 1250 photos per month x 6 months X \$8.95	\$54.00
Total	\$1,309

Game Camera Features

The Livestock Predator Prevention Pilot Project wanted producers to have the experience of being able to use a full-feature camera to fully utilize the largest list of options. As such we purchased a fully-loaded camera and compared it to a basic lower cost camera to determine benefits and drawbacks.

1. Ridgetec Dual Camera

- Day or night photography. Settable triggers and multiple settings.
- Bear proof steel protection box.
- Remote solar panel to charge batteries.
- Integrated battery/ voltage controller/ weather proof box.
- Yagi directional antenna for contact with cell system in distant pastures.

1. SPYPOINT Force Pro Camera

- Simple easy to move and place camera
- Easy setting
- Day/night photography.
- Memory card transfer of photos.
- Cost-effective alternative that takes good photos.

Why would you spend extra money on features?

- Cameras with removable antennas can be purchased with a Yagi antenna which is mounted higher on a pole, and can communicate your photos in areas of poor to negligible cell service. Pastures with predation often have trees, hills, obstructions or be very distant from cell towers which can often be overcome with the directional Yagi antenna.
- Bear proof steel protection boxes can be bought for many cameras, and as the name suggests bears tend to chew and claw items that are at their level. As such if you are looking for predator photos, a steel box is an asset to keep your camera undamaged.
- Solar panels, external batteries, voltage controller and weather proof boxes are to be considered. This feature adds significant cost to camera however the design purchased by the project generally allows for 12 months a year service in Manitoba. One pilot project camera operated for three years without battery replacement, or opening the box. The solar panel option allows the operator to set and forget, and still be able to obtain photos any time, and review history over months or years which are also stored on a memory card.



Example of fully-loaded game camera with solar power, battery, steel box and Yagi antenna.

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Summary and Conclusions

In response to the question of whether a game camera reduces predation producers had mixed results.

The results varied depending on the initiative of the respondent answering the question.

- We found that if the producer was an avid hunter or trapper, the producer would move the camera based on season and photos which were being taken. The photos would then assist in timing of hunting or trapping and a general awareness of what predator was local to the camera. The hunters and trappers often took action to remove or haze the predator and were quite pleased with the purchase of the camera and investment.
- Producers who were not interested, or did not have time to hunt or trap generally derived less satisfaction from the cameras, and some tended to not renew their photo subscriptions to save cost.
- Producers should be realistic about their time and ambition toward hunting and trapping prior to investing in cameras. Awareness of cell signal strength and the whole package of what you want to do with the camera should precede the purchase of a camera, as most cameras take good photos, but costs can quickly escalate.
- Many producers use cameras in summer to monitor water sources for both predators and water availability. And in off seasons they monitor driveways, access points and fuel tanks to better justify the cost of purchase.

Project Participant Feedback

"Cameras are set up at dugouts in fall to capture photos of predators and cows who have escaped fall roundup. It has helped several times to figure out where to find the missing cows."

– *Association of Manitoba Community Pastures
pasture manager*

"We use multiple cameras to triangulate predators"

– *Eriksdale Manitoba beef producer*

"It provided evidence of what roams my pastures."

– *Fisher Branch Manitoba beef producer*

"We used a camera on livestock carcass site and found many predators including dog packs coming through our pasture."

– *Hilbre Manitoba beef producer*

"Camera was set up in a location we call wolf alley, and we caught pictures of wolves, coyotes, deer, elk, almost every kind of animal, until a bear would lick the power wire and disconnect the power. I think one time even a licking elk pulled the wire. Wildlife!!!"

– *Association of Manitoba Community Pastures
pasture manager*

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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