

LIVESTOCK PREDATION PREVENTION PROJECT (LPPP)

FOXLIGHTS TO REDUCE LIVESTOCK/PREDATOR INTERACTIONS

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 having coyotes, wolves, or foxes attacking their livestock may want to consider the use of solar foxlights to distract and reduce predator activity near livestock pens. Solar foxlights are one of the simplest predator deterrents. They are a little bit bigger than a hockey puck and create a varied time and color light show once the sun goes down. This unusual light display is intended to confuse and scare predators out of the general area for a few weeks of a predator risk season.

Background:

Predators seeking to attack livestock are very wary and primarily work in low light scenarios. With this in mind an Australian company designed foxlights to emit a bright LED light with multiple colors, patterns and intervals that are intended to scare and disorient predators by giving an illusion of human activity in the area. Original foxlights required providing and exchanging batteries, but over time a solar panel and rechargeable battery were incorporated to make the foxlights very user friendly. The current model is merely hung on a fence or placed on a post and works every night to create a light show and distract predators. While it does not hurt a predator, it causes them to stop and assess whether they want to venture into the area. Like many deterrents, foxlights may be time-limited in their effectiveness. Consider using foxlights during peak risk periods and in combination with other deterrents.



Solar Foxlight Facts:

1. Tested on 14 commercial Manitoba farms.
2. 6 beef farms, 8 sheep farms.
3. Solar foxlights created the light show without failures on 13 of 14 farms.
4. Producers averaged 188 head of livestock under care in foxlight yards.
5. 86% of producers used foxlights for a limited period of time, then took them down out of view.
6. 83% of producers believed that the foxlights reduced predation.
7. 92% of producers would replace the foxlights if they were removed.
8. 85% recommend other producers with predator concerns try foxlights.

Foxlights as a Predator Risk Mitigation Practice

Predators: Wolves, coyotes, foxes, bears, cougars

Livestock: All species of livestock

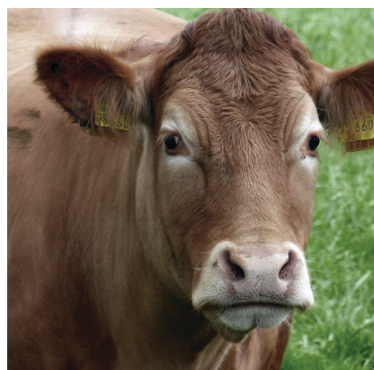
Limitation: Nighttime attacks only. Two-month time-limited application.

Pilot Project costs of installing 4 solar foxlights (2021)

Qty	Item	Cost Each
4	Solar Foxlights	\$164.95
Total		\$659.80

Basics That Help Foxlights Work:

1. Solar foxlights do not harm predators or prey, they simply flash various color LED lights in various different patterns and timings.
2. Predators' attention is caught by the unusual colors and flashing, and they generally stop when they notice flashing lights to consider what may be causing the light and where it is coming from.
3. Predators which have been hazed by humans around livestock pens will be more hesitant to invade pens.



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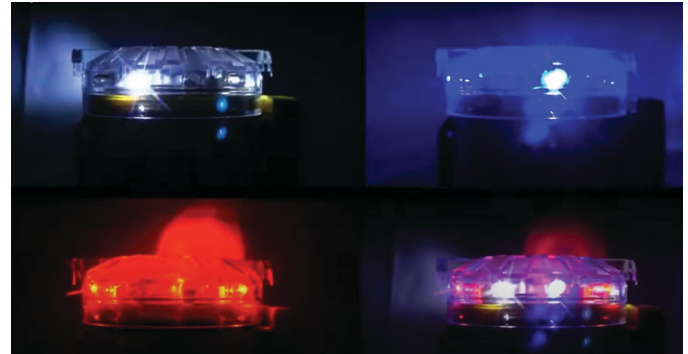


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4. Starting up the foxlights during the first days of calving or on weaning day will be the most effective way to use foxlights, as a predator may move on to someone else's farm or back to the wilderness instead of attacking. Predators are always going to exist in rural Manitoba, and avoidance of the first kill is a valid strategy.
5. Solar foxlights only turn on during the dark, and play no role during daylight hours.

Limitations of Foxlights

- Foxlights only turn on during low light hours, and as such, are only effective during the night. Producers in Manitoba who are looking for predator mitigation during May and June will find that the foxlights only turn on between 11 pm and 5 am which is a very short period during very long days.
- Foxlights do no real harm to predators, and as such, if there is no human or dog presence or scent, the predator may quickly come to ignore the light show and pursue livestock for a meal.
- Hungry predators at times will ignore all caution and attack livestock. The light show may work or may fail. Foxlights are best used to improve chances that a predator will think twice before attacking.
- Foxlights are recommended by the manufacturer to only protect for set periods of time and will become ineffective if used constantly. Two consecutive months would be the maximum time you would want to use foxlights.
- The use of livestock guardian dogs or donkeys and predator resistant fencing is an excellent way to improve the protection of your livestock.
- The activity of a person walking a perimeter, leaving a scent, and hunting and trapping predators in defense of property are other strategies to supplement the foxlights' effects.



Foxlight images captured in the dark from the same angle showing various colors of light emitted.

Project Participant Feedback

"Very low maintenance, easy to move. I would just drop them on top of electronet posts and the sun keeps them charged up nicely."

– Gardenton Manitoba sheep producer

"They worked as advertised! Impressed"

– Oakburn Manitoba sheep producer

"I had coyotes prowling among newborn calves at night that we could see on a cow camera every night. We set up a single foxlight and the night prowling stopped for several weeks."

– Moosehorn Manitoba Beef Producer

"We set the eight foxlights on a Manitoba Hydro right of way which was a clearing a mile long through our pasture. We had a lot of problems with wolves among the cows and calves. Once we set up the foxlights, our predation stopped. I cannot guarantee what caused the stoppage but it changed, and we are happy. Would buy them again."

– Minitonas Manitoba beef 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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