



Ontario Soil and Crop Improvement Association
1 Stone Road West, Guelph, Ontario N1G 4Y2

MEDIA RELEASE

For Immediate Release
August 6, 2003

Matching Wits with Wily Coyote

Prepared by Nancy Tilt for the Ontario Soil and Crop Improvement Association

“Waking up every morning to lambs killed by coyotes was pretty discouraging.” That’s what Cherry Allen and Mark Ritchie, sheep producers on Amherst Island in eastern Lake Ontario, faced when they first began farming here 11 years ago. Lambing in the spring, weaning in August, and when coyotes are teaching their young to hunt in the fall are the times of year when lambs are most susceptible to predation.

“A Wildlife Impact Assessment for Agriculture” by the Ontario Soil and Crop Improvement Association (OSCIA) in 1998 estimated provincial losses of sheep to coyotes, wolves and dogs at 13,000 with a value of just over a million dollars. These losses included injured, missing and aborted lambs, in addition to kills. Ontario sheep farmers’ annual investment in wildlife abatement measures totalled \$1.7 million along with over 130,000 hours of labour implementing those measures.

Mark and Cherry have a 1000 ewe pasture-based commercial operation on 1000 acres. Over the years they’ve tried various measures to protect their flock, including donkeys, strobe light and ultrasound, hunting, trapping, and guard dogs, all with varying degrees of success.

Coyotes are renowned for their adaptability, making it difficult to come up with a simple recipe for limiting predation. Mark and Cherry suspect it’s more often a few coyotes causing a problem than the local population in general. Coyotes’ natural diet includes rabbits, mice and groundhogs, and in keeping these populations in check, coyotes can benefit the farmer.

Nevertheless, coping with problem coyotes can be a frustrating battle of wits. “Coyotes respond to our control patterns,” notes Mark. “With any new control measure we’re granted a honeymoon period, while the coyote figures out a way around it. Guard dogs have proven the most effective, but more than one coyote can outsmart them. One dog can only protect so many ewes. Larger flocks and larger fields require more.” Mark and Cherry currently have 8 guard dogs – Great Pyrenees and Maremma breeds.

“We don’t know what we’d do without the dogs,” Cherry comments, “but they do require considerable work and expense.” She estimates food and veterinary bills at \$300-500 per dog per year, in addition to their time to condition them to guard the sheep. Even so, there are still lambs maimed and killed. Farmers accept some loss to wildlife as a cost of doing business, but it’s more than just dollars. As Cherry puts it, “It’s very hard seeing injured animals suffer.”

With agricultural losses to wildlife increasing across Ontario, OSCIA is helping farmers find ways to cope. Agriculture and Agri-Food Canada's Agricultural Environmental Stewardship Initiative, administered in Ontario by the Agricultural Adaptation Council and the Ontario Farm Environmental Coalition has provided financial assistance.

With the opportunity to try another control method, Mark and Cherry decided to construct a coyote-exclusion "safe area" to protect ewes and lambs during the most vulnerable times of year. Their land is fenced with standard page wire or electric fence, but they've observed, "It's easy to keep sheep in. It's a lot harder to keep a coyote out."

Constructed this spring, the safe area is 65 acres, surrounded by 4-ft, high tensile small mesh page wire. This is topped by a live wire 9 inches above the page and another dead wire 9 inches above that for a total height of 5½ feet, too high for coyotes to jump. The wire is set on steel posts 2½ feet in the ground, 20% of which are drilled into the rock, where the soil is too shallow. It's set close to the ground with any gaps blocked to keep coyotes from crawling under. The heavy clay soils discourage digging.

Custom-made gates provide access — two 8-ft x 6-ft high chain link gates for each of 10 openings. Existing fencing within the safe area divides it into three compartments that facilitate handling the sheep as needs arise.

The safe area can harbour 250-300 ewes and their lambs. As Mark and Cherry monitor the lambing ewes, they check the fence at the same time. As of late June they had observed only one kill, and that outside the safe area. With the guard dogs not required within the safe area, they've been able to concentrate them on the remaining pastures. We move the lambs and ewes out of the safe area once lambing is finished to allow the pasture to rejuvenate," Mark explains. "When the lambs are ready to be weaned in August, we'll move just the lambs back into the safe area."

"One of our most valuable tools in limiting coyote predation is 'change'," notes Mark. "The more we change and vary our control methods, the warier the coyotes, the fewer our losses. The "safe area" becomes yet another tool we can use strategically."

Carleton University is also a partner in the project, helping monitor the effectiveness of the fencing with the aid of GPS technology. Mark and Cherry will record lamb kills on a GPS unit as they find them. Travis Anderson, a Carleton Environmental Studies student working with Dr. Nancy Doubleday, will plot these on a map of the farm's entire acreage showing the perimeter fencing and location of the safe area, to see if a pattern emerges. The team also plans to section and age teeth from any coyote carcasses to evaluate the island's population structure.

Research shows that unexploited coyote populations typically have older age structures, low reproductive rates (especially among yearlings), and hence fewer pups to feed. A population under pressure, as would be expected in an agricultural landscape, tends to have younger animals, higher reproductive rates and more pups to feed. The Carleton University study will hopefully shed some light on the status of Amherst Island's coyote population and provide yet further insight into ways of limiting coyote predation on sheep.

For more information and photographs of the landowners and the project contact Andrew Graham at Ontario Soil and Crop Improvement Association. Tel: 519-826-4216, Fax: 519-826-4224 or Email: Andrew.Graham@ontariosoilcrop.org