

Opening Eyes Through the Lens: How Agriculture Protects Canada's Grasslands

The grasslands that spread like a blanket across Canada's four Western provinces are one of the world's most endangered ecosystems. Yet, many Canadian's aren't even aware. We don't value grass in the same way we do trees. Advocacy for protecting forest habitat and marine life comes regularly to the top of our news feeds. The grasslands? Not so much.

Thanks to the release of a compelling documentary highlighting the surprising hero that's helping to protect the grasslands ecosystem, eyes are being opened and misconceptions countered as we see the positive role agriculture plays in a sustainable and thriving grasslands ecosystem. Based in rural Alberta, the film, *Guardians of the Grasslands*, was produced by Ben Wilson and Sarah Wray, and supported by dedicated conservationists.

Why the grasslands matter

The grasslands ecosystem contains wetlands, lakes, and rivers which support fish and waterfowl, and provide habitats for millions of migratory birds that stop to rest, nest, and feed. The grasslands support wildlife and the people and communities who rely on the land. Grasslands are critical in allowing water to infiltrate the ground, which in turn ensures healthy rivers and streams.

We often think of our forests as great storehouses of carbon, but Canada's grasslands act as one of the world's most stable carbon sinks by absorbing greenhouse gas (GHG) emissions and storing much of the carbon in the soil. According to some estimates, Canada's grasslands and pastures store up to 1.5 billion tons of carbon, which is equal to the emissions from 3.6 million cars annually.

Canada has already lost 74 percent of its grasslands and the remaining land is home to 60 at-risk species. We can't afford to lose more.

Grasslands need grazers

Millions of bison once roamed Canada's grasslands, shaping the ecosystem and providing immense environmental benefit. Over time, cattle replaced the bison and generations of sustainable ranching have helped nourish and

sustain the ecosystem. Sometimes we make decisions without considering the impact. This is what happened when Grasslands National Park was established in the 1970s. The cattle were removed from the park, and without any grazers, invasive plant species became rooted in the land, leading to the disappearance of large numbers of birds. Cattle and bison have since been reintroduced to restore the ecosystem.

Research helps discover the facts

While questions about water use and GHG emissions in the agriculture sector dominate the headlines, the history of Grasslands National Park has taught us the need to consider our decisions holistically. According to the Government of Canada statistics on GHG emissions, Canada's beef cattle account for only 2.4 percent of the country's total emissions. The reality is that cattle contribute to a thriving environment. They're natural fertilizers, returning protein-rich nutrients to the land. Removing them from the ecosystem can have negative consequences.

In addition, cattle can graze on marginal land that isn't suitable for human food production, and they live in harmony with other animals. While there isn't the data yet to suggest that cattle are carbon-neutral, there's more in their favour than ever gets considered. They're a tool to combat climate change.

It might sound radical to some, but cattle are the heroes that can keep our environment healthy and sustainable. This is going to become especially important as climate change increases the risk of forest fires, which cause carbon to be released into the atmosphere. In contrast, when grasslands burn, most of the carbon stays stored beneath the ground in the roots.

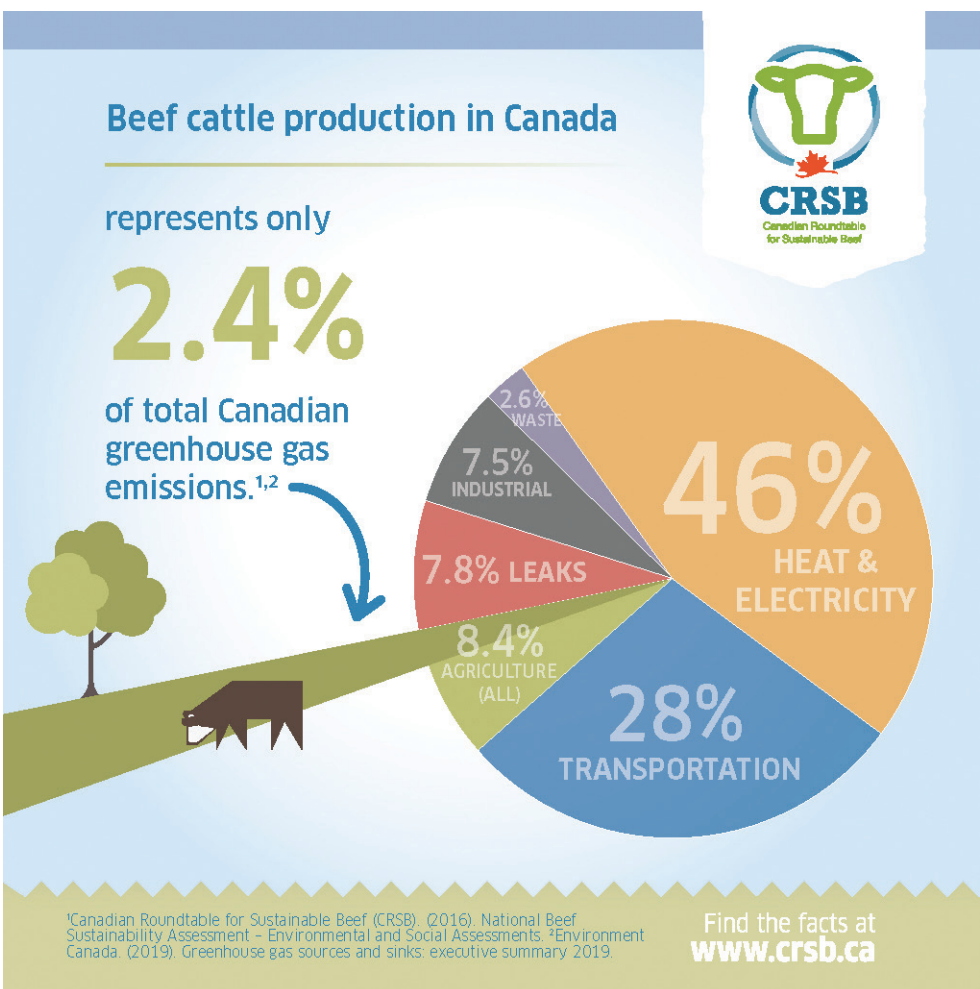
Sometimes what you thought was the problem is the solution. This is the provocative message the makers of *Guardians of the Grasslands* want people to think about. ●

Ken Donohue

To learn more about the film and to arrange a screening, visit guardiansofthegrasslands.ca



Cattle live in harmony with native animal species in pasture and grasslands.



Cattle Farmers and Conservationists Combine Forces



Kristine Tapley
Regional Agrologist, Beef Industry,
Ducks Unlimited Canada

The Canadian Prairies, known primarily for cattle ranches, feature incredible bio-diversity and are home to more than 60 native at-risk species. The 2,000 km valley of plains, forests, and farmlands is also one of the world's most stable carbon sinks.

But ranches are disappearing and we've already lost 74 percent of the Canadian grasslands to farming and development. Even with an investment of billions of dollars, they would take hundreds of years to regenerate, making it critical that we maintain the grasslands that remain.

Grass grazers are necessary

"Our native ecosystem is largely prairies and requires a grazing presence to flourish," says Kristine Tapley, Regional Agrologist for the Beef Industry at Ducks Unlimited Canada (DUC). "When we hear negative stories about beef farming in the media, it's often in a global context that misses the Canadian context."

Ranchers and conservationists raising awareness

DUC has forged an alliance between cattle farmers and conservationists to raise awareness about the importance of the grasslands to our environment and the importance of cattle to the grasslands.

"The partnership is based on the fact that we have so much in common and share so many of the same goals," says Tapley, who raises beef cattle. "Working together brings us closer to our shared end goal. We all want to keep water and grass on the landscape."

An important and symbiotic relationship

The beef industry relies on the grass landscape as part of its production cycle and the prairie ecosystem needs the impact of grazing in order to rejuvenate grass and plants. Removing the top level of grass also allows more sun to penetrate the soil. It's a necessary and symbiotic relationship.

"If we lose the beef industry we lose the grass that goes along with it," says Tapley. "It's really as simple as that." ●

Gavin Davidson

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Canadian Cattle Stand on Guard for Our Grasslands



Ben Wilson
Freelance Filmmaker,
Story Brokers Media House



Sarah Wray
Film Director,
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Everyone has heard of the Guardians of the Galaxy. But did you know there're another group of guardians — who do more chewing than shooting — protecting the Canadian grasslands?

Guardians Of The Grasslands is a short documentary exploring the current state of one of the world's most endangered ecosystems, the Great Plains grasslands, and the role that cattle play in its survival. The film, produced by a group of dedicated Canadian filmmakers, featuring passionate conservationists, and ranchers, reveals important truths we must face about humanity's relationship with the land and our food as we reach new critical levels in the loss of these iconic landscapes.

Grasslands are nature's carbon sink

"The Canadian grasslands are really cool not just because of their incredible diversity of species, but because they collect carbon from the atmosphere and store it in both the plants and the roots," says Ben Wilson, one of the filmmakers.

"The grasslands act as a natural and extremely stable carbon sink," continues Sarah Wray, the film's director. "The carbon will remain there as long as the land is never tilled. It's really a special thing."

Cattle an essential element of a healthy prairie

Coming from a cattle ranching family, Wray was familiar with the connection between beef farming and the grasslands before starting the project. But for Wilson, coming from a background in aerospace engineering, it was a real eye-opener.

"What was really special for me was that I grew up in this industry and had always known the role played by cattle in protecting our valuable grasslands, but had never known how endangered they were," says Wray.

Working together towards a common goal

"A rainforest being cut down is a very visual thing, but what's happening in the grasslands is harder to grasp," says Wilson. "Thankfully, ranchers and conservationists are working together to achieve the shared and urgent goal of preserving what little is left of Canada's grasslands." ●

Gavin Davidson

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