

Ag leaders brainstorm ways to cut industry's emissions

SARAH LAWRYNUIK

CLIMATE CHANGE REPORTER, LOCAL JOURNALISM INITIATIVE

MANITOBA'S agricultural sector continues to be a growing source of greenhouse gas emissions in the province, attributed mainly to the increase of fertilizer use and large-scale cattle operations.

This week the Centre for Policy Alternatives, alongside the Manitoba Eco-Network, assembled a panel to discuss ways in which this can be addressed by the industry.

"What we're learning is that our targets are weak, our actions are slow, we're not ambitious enough and that clearly we need to do more, and we can do more," said Darrin Qualman, a director with the National Farmers Union. "In Manitoba, that especially means reducing emissions in agriculture."

Approximately 35 per cent of provincial emis-

sions are attributed to the agriculture sector, according to Canada's national greenhouse gas emissions inventory report, and more than eight per cent of national emissions.

Methane and nitrous oxide are the two greenhouse gases most relevant to farming. Agriculture accounts for 77 per cent of the country's total nitrous oxide emissions and it's 300 times more potent than carbon dioxide. Its principal source is fertilizer use. Meanwhile, methane's primary agricultural source is cattle.

Qualman attributes most of the rise in agricultural emissions to the rise of nitrogen-based fertilizer use, which according to the union's data has doubled since 1989.

"It's not fuel use, it's not livestock, it's nitrogen fertilizer driving that increase," he said.

As a result the union is suggesting lower-input

farming techniques, such as those used by Borderland Agriculture, a grain crop farm that has integrated bison into the production cycle to minimize man-made inputs into the system, based in the southwest corner of Manitoba.

Minimizing inputs improves soil quality and its ability to sequester carbon; using fewer inputs also minimizes emissions that come from the production, deployment and deterioration of the fertilizers.

Amber McNish works with Borderland Agriculture, and explains that while averting climate change is a key benefit to adopting low-input practices, Borderland really moved in this direction because the farm's owners realized how the industrial nature of farming was causing the land to decline in quality.

"In 2015, the whole farm made a major shift to what we'd call regenerative," McNish said. "That was about restoring the land, improving it for future generations but also our bottom line at the end of the day. The farm had gone through about five disaster years of either seeding no acres due to flooding, or about 20, 30 per cent of the farm was sowed. And that led to us realizing that the water cycle was broken."

In addition to a more nature-based approach to farming, by manipulating the crops less, it also decreases fuel consumption, McNish explained, with her estimate being that roughly 3.5 times more fuel is used per acre on a conventional farm.

"The rise of our current, conventional farming system has shifted emphasis away from family farming, to large agri-business and corporate agriculture that's primarily focused on international trade and export markets," said Jeanette Sivily, the coordinator of the City of Winnipeg's food council.

Emissions from our food supply chain shouldn't be forgotten about in these discussions of farming, Sivily said.

Reliance on local food supply chains also boost community resilience, Sivily said. Whether it be souring relations with China, wildfires or a pandemic, international supply chains are vulnerable to disruptions and price shocks. Bolstering the small but mighty local food market should be a priority for Manitobans, whether that means signing up for Community Supported Agriculture (CSA) boxes, or buying from local farmers markets, she said.

"In order to support this kind of local food system, what we've been hearing from small-scale food producers... is that we really are in need of scale-appropriate regulations," Sivily said. "What they continue to tell us through different reports and through experiences they're having, is that agriculture policies and practices in Manitoba are shaped with a more large-scale type of agriculture in mind."

sarah.lawrynuik@freepress.mb.ca

