




**FINAL REPORT** OF THE  
**PRAIRIE FARMER & RANCHER FORUM**

**JUNE 2024**



An aerial photograph of a rural landscape. The foreground shows a golden-brown field with tire tracks. In the middle ground, there are green fields, a dirt road, and a farmstead with a blue-roofed building and several silver silos. A small pond is visible near the farm. The background consists of rolling hills under a clear sky.

*“Together, we discovered that among the diversity of the Forum members there is a unifying sense of pride and responsibility for the land we manage. No matter how big or small the acres, old or young the farmer or rancher, or the myriad of methods each individual employs in their context—we are doing the work of land stewardship.*

*We want our land to be productive, healthy, resilient, and viable for the future. We want to use technology and science to increase productivity without sacrificing profitability, we want to be profitable without having to stress the capacity of our labor or ecosystem into illness and disease, we want to feed the global world without jeopardizing our local world, we want to see our communities thriving and successful instead of deserted and dying. We do want the best for our industry and we have made outstanding progress already...*

*We know our context, we know our challenges, we are willing to learn and adapt to a changing world—we will continue to lead from the ground up.”*

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# EXECUTIVE SUMMARY

Thirty-six producers came together in early 2024 to form the Prairie Farmer & Rancher Forum. These farmers and ranchers were randomly selected through a civic lottery process to broadly represent the demographic diversity and different production systems of Prairie agriculture. This citizens' assembly model has been used successfully in other sectors in Canada to develop grassroots policy recommendations, but it has never before been employed in the agriculture sector. The Forum's mandate was to examine issues and opportunities related to climate change and enhancing sustainable agriculture production on the Canadian Prairies. Our goal was to develop recommendations for a strong, sustainable, and prosperous Prairie agriculture sector.

Forum members met for multi-day meetings on three separate occasions to hear from experts on climate change, soil health, data and measurement, nutrient management, and a number of other topics related to sustainability and land stewardship, and to formulate recommendations for improvement. Between meetings, Forum members consulted with others in their communities to seek input and suggestions.

The Forum came to a strong consensus on a set of guiding principles and 36 recommendations centred around measurement, livestock management, soil health, natural habitat, nitrogen management, and energy. These recommendations are practical, achievable, and they are rooted in the experience of Forum members. Together, the recommendations offer the sector a starting point for improving sustainability and profitability in Prairie agriculture.

The 36 Forum members varied by age, gender, location, scale, and type of production. Members were also selected to represent a range of opinions on climate change, from those who do not believe that human-caused climate change

## Executive summary

is occurring, to those who see global warming as a threat to human civilization, with many gradients of opinion in between.

This diversity led to conflict and disagreement at the first meeting, but Forum members made a conscious decision to set aside their personal views on climate change in an effort to find areas of common interest. The members soon realized that they did not need to agree on the problem in order to agree on good recommendations that make a difference for our industry and the environment. Everyone agreed that promoting soil health is important, for example, but different members prioritized different outcomes—for some, the primary motivation for improving soil health was increased productivity and profitability; for others, it was mitigating greenhouse gas emissions and sequestering atmospheric carbon. Maintaining profitability and productivity was a priority for many. In the end, a universal commitment to long-term land stewardship brought Forum members together and led to agreement on an ambitious set of recommendations. It is important to note that none of the recommendations directly mention climate change. Forum members found language that everyone could get behind and that would lead to the positive outcomes that each member prioritized.

In an era of increasing polarization, the Prairie Farmer & Rancher Forum is an example of how a collaborative, honest, and open process of deliberation and dialogue can lead to consensus on substantial policy recommendations. It is also a testament to the wisdom, knowledge, and experience of Prairie producers.

Forum members are hopeful that all actors in the Canadian agri-food system—including primary producers, farm and ranch organizations, industry groups, food buyers and retailers, governments and consumers—will work to implement these recommendations and join in the vision of a healthy, sustainable, and prosperous Prairie agriculture sector, now and in the future.

The Prairie Farmer & Rancher Forum was organized by [Farmers for Climate Solutions](#), a national, farmer and rancher-led coalition of farm organizations, and funded by independent Canadian foundations, with an independent facilitator and co-leads from the Prairie agriculture sector.

## Executive summary



Throughout this report, certain technical terms are underlined with green dashes. For more information about a term, click on the underlined words or refer to the glossary in the Appendix.

A special thanks to Forum members who provided photos of their own operations for inclusion in this report. Aside from the cover page, all farm and ranch photos are from Forum members. Thanks to Sammy June Photography for photos of the Forum process in action.

All quotes in this report are from Forum members.



## CHAIR'S NOTES

This report is the culmination of the learning and deliberations of 36 randomly selected farmers and ranchers who achieved consensus on 36 recommendations to enhance sustainable agriculture production for the Prairie region of Canada.

The Prairie Farmer & Rancher Forum was explicitly designed to highlight the diversity of perspectives and experiences that comprise agriculture on the Canadian Prairies. Farmers and ranchers on the Prairies are innovators and entrepreneurs who face the challenges of producing grains, oilseeds, and livestock over a large land area. The purpose of the Prairie Farmer & Rancher Forum was to bring a representative sample of these people to address the big questions for our industry in the face of climate change.

Agriculture and food industry leaders, farm and ranch organizations, and federal, provincial and municipal governments should fully consider the Forum recommendations. The recommendations are practical, achievable, and will help set the course for improving sustainability and profitability in Prairie agriculture.

Everyone involved in the Forum took huge risks—the farmers and ranchers who volunteered their time, Farmers for Climate Solutions, the funders, and the project team. In the end, we achieved consensus on 36 strong recommendations that directly impact farm and ranch management. These recommendations have the potential to enhance the sustainability of Prairie agriculture.

We hope this is the first of many agricultural forums that bring ordinary people together to find common ground and solutions to difficult problems. The Prairie

## Chair's notes

Farmer & Rancher Forum is an example of how this is possible, why it is necessary, and what can be accomplished when we do.

Early in the process, there were tensions, doubts, and apprehension. Some members feared that there were predetermined outcomes or hidden agendas in the process. But trust formed through respect and open dialogue. Forum members were selected for their differences, but they soon learned that they had much in common.

We had a lot of fun, too.

I am so impressed with the farmers and ranchers who participated in the Forum. They gave up precious time to engage with people they had never met and disagreed with on many levels. Everyone had to let go of some ideas held dear in service of finding consensus on ideas that hold promise.

I thank everyone involved for your courage, commitment, and public service.



Mary Smillie  
Chair of the Prairie Farmer & Rancher Forum



*“...we tried to use the most scientific, up-to-date information to generate a report that best represents the triumphs and areas needing improvement in Prairie agriculture (...) we worked cooperatively as a diverse group, no hidden agenda.”*





## **A MESSAGE FROM THE CO-LEADS**

As Co-Leads of the Prairie Farmer & Rancher Forum, we want to thank all participants for their efforts and congratulate them on their accomplishments. The recommendations of the Forum reflect the diversity of the views and backgrounds of participants. A high degree of consensus was achieved on the recommendations.

The issue of sustainability and environmental stewardship is a difficult topic in Prairie agriculture. Many farmers and ranchers feel besieged by governments and markets putting new pressures on the production process. Opinions on the urgency of change are more divided on the Prairies than in other parts of Canada. These pressures make progress challenging. Forum members have met this challenge head on, and they deserve congratulations for their hard work. Forum Chair Mary Smillie deserves credit for recognizing what can be possible when farmers and ranchers with different points of view come together to put their ideas for change on the table for discussion.

These recommendations create opportunity. The recommendations on soil health, nitrogen management, livestock, and natural habitat highlight important

## A message from the co-leads

opportunities for farmers and ranchers to continue to contribute to positive environmental outcomes while producing food, feed, and fuel that Canada and the world need. The recommendations on energy identify ways that agriculture can prosper as energy systems change. The measurement recommendations form a foundation for allowing us to tell our stories to the world. If properly developed, these measurement systems will allow us to see progress on our farms as new approaches are developed and adopted. Forum members now pass the baton to governments, agricultural leaders, fellow farmers and ranchers, and the wider community to build on this foundation and continue the difficult but necessary conversations that will lead to a great future for our sector.

Prairie agriculture is part of an integrated international marketplace for food, fuel, and feed. This marketplace relies on diverse suppliers to help stabilize international supplies and prices. As climate change makes weather patterns more extreme, this relatively free exchange of agriculture commodities will become more important. If sustainability objectives reduce our ability to continue to supply the products that are demanded, the market would need to find these supplies elsewhere. If the alternate supplier is less environmentally conscious, our climate may be made worse off. At the same time, segments of our customer base are demanding more sustainable production methods which creates an important opportunity. The two pressures will challenge both governments and our marketing system. By having farmers and ranchers actively involved in setting the direction and by keeping the need for profitability in mind, we are more likely to find that balance. Change is required. The recommendations in this report are a first step in that direction.



A handwritten signature in blue ink that reads "Ian McCreary".

Ian McCreary  
Forum Co-Lead



A handwritten signature in blue ink that reads "Bacon".

Gordon Bacon  
Forum Co-Lead



# FORUM RECOMMENDATIONS AT A GLANCE

## Our guiding principles

- **Farmer and rancher led**  
Prairie producers are best placed to chart a path to greater sustainability. Farmer and rancher leadership should be recognized, supported, and enhanced.
- **Sustainability focused**  
Sustainability includes environmental, financial, and social sustainability. The most important opportunities lie in systems and practices that increase both environmental performance and profitability.
- **Prairie context**  
Prairie agriculture is unique in Canada and the world, with distinct opportunities and challenges. The distinctive contexts of Prairie farming must always be front of mind.
- **Innovation**  
Farmers and ranchers have made great strides in increasing the efficiency and sustainability of their operations. These innovations should be recognized, celebrated, and spread.
- **Continuous improvement**  
Farmers and ranchers are constantly learning, and must strive to continuously improve stewardship on their operations.
- **Collaboration**  
We will be successful by working together with our fellow farmers and ranchers, governments, food companies, consumers, communities, and other stakeholders.

- 26 expert presenters
- 36 Forum members
- Approximately 70 hours spent learning and deliberating during three separate multi-day in-person meetings and four virtual sessions.
- 36 recommendations

## Forum recommendations at a glance

The Prairie Farmer & Rancher Forum convened 36 randomly selected farmers and ranchers from a range of backgrounds. The Forum was designed to bring together diverse views and broadly represent the agriculture sector of the Prairies.

Forum members volunteered to learn and deliberate over the course of three multi-day in-person meetings held in Manitoba (January 3–5), Saskatchewan (February 14–16), and Alberta (March 13–15). Forum members also committed to meet with other farmers and ranchers in their communities between meetings to solicit feedback and identify emerging questions. A total of four virtual learning sessions were offered between meetings.

*“The Forum brought together a range of perspectives from Prairie farmers and ranchers to deliberate on challenging issues that face the agricultural industry. As participants we were confronted with a host of information from experts and the scientific literature related to the causes and implications of a changing climate and the impact on Prairie agriculture.”*

Together, Forum members:

- Identified ways that industry, policy, and markets are drivers of change.
- Learned how farmers, ranchers, industry leaders, and governments are developing and implementing solutions to meet climate and environmental challenges.
- Recommended solutions to help protect Prairie agriculture’s legacy and position the sector for a sustainable and profitable future.

A deliberative, consensus-based process was used to develop a total of 36 recommendations for Prairie farmers and ranchers, by Prairie farmers and ranchers. Forum members worked hard and generously engaged with people they had never met to find common ground, each letting go of ideas they held dear in service of finding consensus on ideas that hold promise.

The Forum is proud to share these recommendations with the agriculture industry here on the Prairies, across Canada, and in markets around the world. This includes fellow farmers and ranchers, industry groups, the food manufacturing and retail sectors, agricultural organizations, as well as provincial and federal governments.

*“Somehow we have a boatload of recommendations and nobody died or went to jail!”*

## Forum recommendations at a glance

### Recommendations of the Prairie Farmer & Rancher Forum

Each numbered recommendation below was adopted by all Forum members who attended Meeting #3 through a consensus-building process called “[Gradients of Agreement](#),” described in the Appendix.

Forum members also explored potential strategies for implementing the recommendations, which are captured in grey text boxes, starting on page 30. It is important to note that the Forum did not attempt to reach consensus on potential policy instruments and implementation strategies. **The content in the grey text boxes does not represent the consensus view of Forum members and is not fully supported by all members.**

The 36 recommendations are organized into six different topic areas, and a cross-cutting category:

- **Cross-cutting**
- **Measurement**
- **Livestock management**
- **Soil health**
- **Natural habitat**
- **Nitrogen management**
- **Energy**

*“The 36 farmers and ranchers discussed diverse and complex views relevant to most Prairie farmers and ranchers. Those discussions are the basis of the recommendations that all agreed were relevant ranging from short to long term.”*

### Cross-cutting

1. **Establish baseline measurements for each priority category (Soil health, Natural habitat, Livestock management, Nitrogen management, Measurement, Energy) to assess future performance.**
2. **Encourage public funding of regional research centres and organizations.**
3. **Expand and continue to support producer-to-producer networks.**
4. **Increase public funding to support farmer and rancher-directed research.**
5. **Ensure transparency in academic funding.**
6. **Ensure that funders do not influence curriculum at universities and colleges.**

## Forum recommendations at a glance

7. **Create a farmer and rancher organization (or support an existing farm and ranch organization) to ensure good communication with all stakeholders and ensure farmers and ranchers are included in sustainability discussions.**

## Measurement

8. **Adapt and develop modelling systems that better reflect the differences in regions and practices, and that accurately measure the impact of changes in practices on sustainability metrics at the farm and ranch level.**
9. **Encourage farmers and ranchers to develop goals and measure quality of life in addition to other measurements.**

## Livestock management

10. **Recognize the value and benefits of grazing animals and look at the entire production system when considering methane emissions in order to better clarify and understand the benefits.**
11. **Encourage the integration of crop and livestock production by fostering collaboration between grain farmers and ranchers.**
12. **Support grazing management that improves ecosystem health and producer profitability.**
13. **Improve and expand Business Risk Management (BRM) programs for livestock producers and explore opportunities to use these programs to incentivize Beneficial Management Practices (BMPs).**

## Soil health

14. **Support farmer and rancher efforts to increase enduring organic carbon in their soils. Recognize the expanding research on more stable, long-term forms of soil organic carbon and the carbon cycle as important indicators of soil sustainability and health.**
15. **Identify soil tests that will act as the standard metrics for measuring soil health that include soil organic matter, soil organic carbon, microbiology, and mycorrhizal fungi, in addition to existing testing protocols.**
16. **Make available standardized sampling methods for soil testing, and train the agricultural community on proper sampling techniques.**

## Forum recommendations at a glance

17. **Research existing and new agricultural products on the market—such as fertilizers, fungicides, herbicides, and insecticides—and their impacts on soil, water, human, and ecosystem health.**
18. **Research the effect of fertilizers and insecticides on crop mycorrhizal relationships and root growth inhibition, soil biology, and nutrient cycling.**
19. **Ensure that any mechanisms or products that come to market are properly tested and validated, ideally through regional field trials, ensuring they can deliver the outcomes they claim. Limitations of products should be clearly labelled.**
20. **Improve incentives to establish perennials to help address soil health and improve marginal lands, and to prevent the eutrophication of water bodies and rivers caused by excess runoff.**
21. **Support research regarding, and expand the use of, intercropping, cover cropping, polycropping, relay cropping, and animal integration.**
22. **Require traceability and composition of fertilizers from source to on-farm and on-ranch, and ensure farmers and ranchers have access to that information.**
23. **Develop programs to incentivize soil health improvements.**

## Natural habitat

24. **Encourage and assist retention, building, and restoration of habitat, including wetlands, riparian areas, native grass, forest, and shelter belts.**
25. **Ensure all levels of government enforce existing regulations and legislation in place to protect natural habitat.**
26. **Advocate for relevant entities to implement terminology changes by renaming “wasteland” to new categories, for example “natural habitat” and “yard site.”**
27. **Explore opportunities to generate revenue from wildlife habitat to incentivize preserving natural habitat.**
28. **Encourage municipalities (both rural and urban) to capitalize on opportunities to enhance natural habitat.**



## Forum recommendations at a glance

**29. Develop programs to incentivize naturalization of marginal lands.**

### **Nitrogen management**

**30. Promote greater adoption of 4R Nutrient Management.**

**31. Conduct more research on how and where intercropping and cover cropping can lead to reduced fertilizer use.**

**32. Advance research on pulse crop diseases and pulse crop adaptation to allow more and continued integration of legumes into crop rotations.**

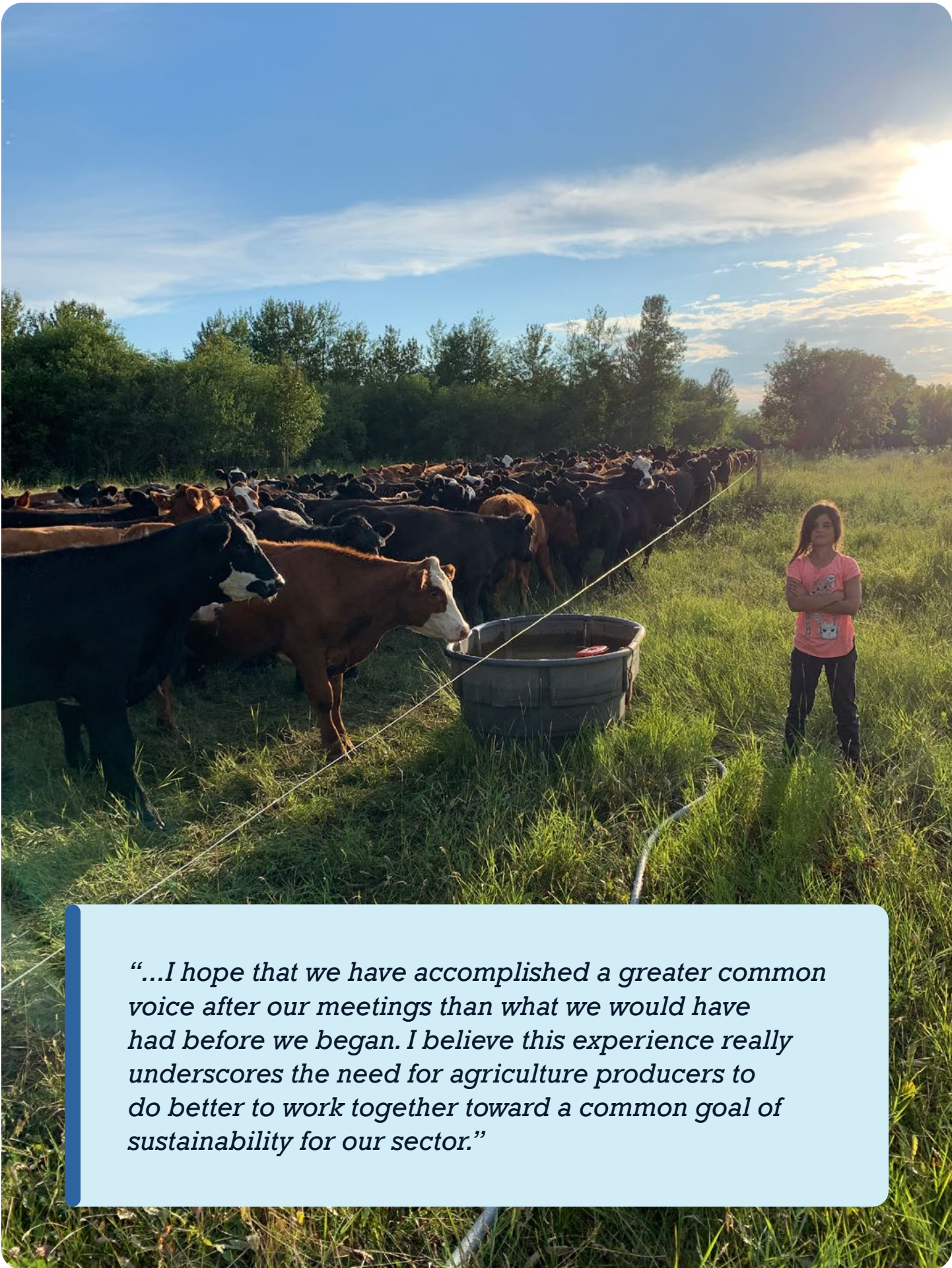
**33. Require all major urban centres to process their sewage and industrial waste in a manner that makes the nutrients safe and available for agriculture to complete the nutrient cycle.**

### **Energy**

**34. Support farmers and ranchers to transition to lower emissions energy sources.**

**35. Expand research into on-farm fuel production using renewable energy (e.g. biodiesel, ammonia, hydrogen, etc.)**

**36. Remove barriers and provide incentives for on-farm and on-ranch renewable energy production.**



*“...I hope that we have accomplished a greater common voice after our meetings than what we would have had before we began. I believe this experience really underscores the need for agriculture producers to do better to work together toward a common goal of sustainability for our sector.”*



## UNDERSTANDING THE FORUM PROCESS

### What is a citizens' assembly?

The Prairie Farmer & Rancher Forum is based on the citizens' assembly model. Citizens' assemblies have been used across Canada and internationally to provide detailed guidance to decision-makers on complex public issues. The goal of an assembly is to create a well-supported opportunity for representative members of the public or particular community, in this case farmers and ranchers, to participate in a public decision or planning process related to a specific issue. These assemblies are typically made up of 30 to 50 randomly selected participants who together represent a range of perspectives, as well as the demographic profile of a specific jurisdiction.

Participation is voluntary. Working with a team of facilitators, assembly members learn about an important public issue. They hear from experts and stakeholders as they work toward a consensus on their priorities. Assemblies issue detailed public reports that explain their work and make recommendations to address the issue at hand. In Canada, assemblies have been used to aid in city planning processes, health care policy development, and other important public issues.

## Understanding the Forum process

### How were Forum members selected?

In order to recruit for the Forum, we:

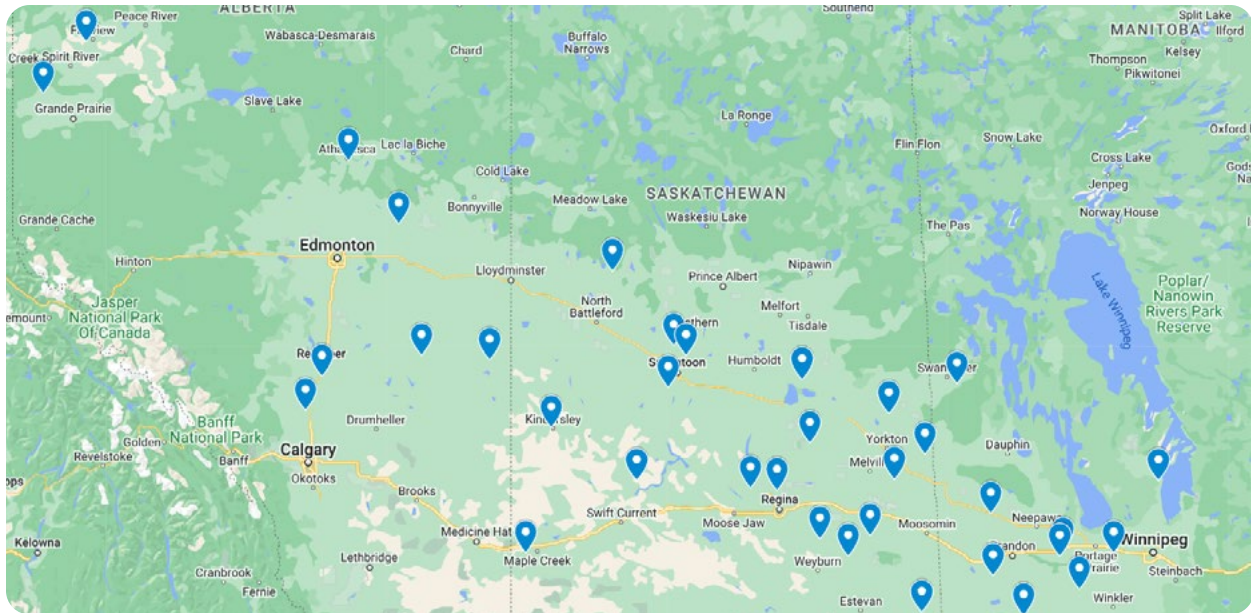
- Sent out 10,000 invitations by mail to randomly selected farms and ranches across the Prairies. The Forum [mail-out invitation package](#) is available in the Appendix.
- Ran a public outreach campaign so interested farmers and ranchers could apply online.

Forum members were chosen by randomly selecting individuals from the group of people who applied to join the Forum. This process is called a Civic Lottery. The Lottery is designed to ensure that the selection process is fair, and that the final 36 members broadly represent the population of Prairie farmers and ranchers by balancing gender, age, geography, and other criteria against known population information, where available. The Forum selection process was also designed to include diverse views on whether climate change is occurring or not, and what may be causing climate change. The questions Forum applicants were required to answer are available in the [Candidate Response Form](#) included in the Forum mail-out invitation package in the Appendix.

To be eligible for the Forum, applicants had to live on the Prairies, be at least 18 years old, and at least half of their household income had to be derived from their agricultural operations. Only one person per household could participate in the Forum. Elected representatives and individuals employed by agriculture sector organizations were not eligible to serve on the Forum.

While every effort was made to recruit Forum members who broadly represent the Prairie agriculture sector, the people who volunteered to participate tended to be interested in issues like climate change and sustainability. Therefore, many Forum members were already engaging with the questions we explored. Some were less concerned about these issues or rejected that climate change is an issue altogether.





## FORUM SNAPSHOT

The Prairie Farmer & Rancher Forum brought together volunteers from very different backgrounds. The Forum was designed to represent diverse views because solutions are never one-size-fits-all, and a diversity of opinion can lead to better solutions. The Forum was also designed to broadly represent the agriculture sector of the Prairies to ensure the recommendations were developed for Prairie farmers and ranchers, by Prairie farmers and ranchers.

Although Forum organizers sought out as much diversity as possible, some agriculture sectors and Prairie regions were not represented in Forum membership. Sectors that were not represented included the dairy sector, feedstock operations, intensive livestock operations, poultry farming, egg production, and other specialized crops. Despite seeking to include as much diversity as possible, this process and report also did not include the experiences or views of

### Sectors

- 23 oilseed and grain
- 19 cattle ranching and farming
- 7 other sectors

### Provinces

- 8 Alberta
- 9 Manitoba
- 19 Saskatchewan

### Ages

- 3 are under 35
- 13 are between 35–54
- 20 are 55 and over

### Gender

- 8 women
- 28 men

## Forum snapshot

Prairie First Nations, Indigenous, Métis, Inuit, racialized, or Black people, due to lack of applicants.

The Civic Lottery to select the members of the Prairie Farmer & Rancher Forum was conducted on December 1, 2023. Thirty-six people were randomly selected to participate. Together, the Forum broadly matches the demographics and population distribution of the agriculture sector on the Prairies. The map on the previous page shows where Forum members farm or ranch.

Opinions on the degree to which climate change is happening and is caused by human activity are more diverse on the Prairies than in any other part of Canada. The views of Forum participants reflected this diversity. At the beginning of the second Forum meeting, members agreed not to spend Forum time trying to convince each other on the issue of climate change. However, there was a recognition that our products are consumed in other parts of North America and around the world where concern about emissions is high and growing, and that it is important for our sector to measure, reduce, and report on emissions. Nevertheless, some participants expressed frustration that this focus on emissions is necessary.

*“...What we don’t want is to be pressured, coerced, manipulated or forced into doing things that do not benefit our values, principles, and goals. If there’s a meaningful relationship based on respect and trust, we can cooperate with whomever and achieve mutual outcomes.”*



*“It is amazing how the organizers...recruited young members to participate in this Forum when they are so busy with children, community activities, and farm responsibilities. These are a diverse bunch not barking up the same tree and eager to challenge anyone. They are the greatest asset Canada has going into the future!”*



## OUR MANDATE

The original mandate of the Prairie Farmer & Rancher Forum was to examine issues of climate change and environmental sustainability in Prairie agriculture, and to develop recommendations that would lower greenhouse gas emissions, promote climate adaptation, and lead to a more sustainable and prosperous Prairie farm and ranch sector. This mandate grew out of the realization that, across the Prairies, farmers and ranchers face increasing pressure and challenges from the market, weather, public perception, and the potential impact of new regulations in Canada and export markets. The sector needs to be ready to respond to the changes that are already happening and will continue to come our way. Large food and grain companies are increasingly focused on lowering their emissions, which drives the demand for sustainably produced crops and livestock, and raises questions about how sustainability is measured. Farmers and ranchers face more questions about how they grow crops and raise livestock. These changes create opportunities to position Prairie farmers and ranchers as national and global leaders.

The Forum process was designed to bring experts in the fields of climate and agriculture, sustainability, and environmental stewardship to present to Forum members, who would then deliberate and debate, creating recommendations based on the scientific evidence and data presented by the experts.

When Forum members convened at the first meeting in Manitoba, it quickly became clear that the original mandate of the Forum needed to be modified. The emphasis



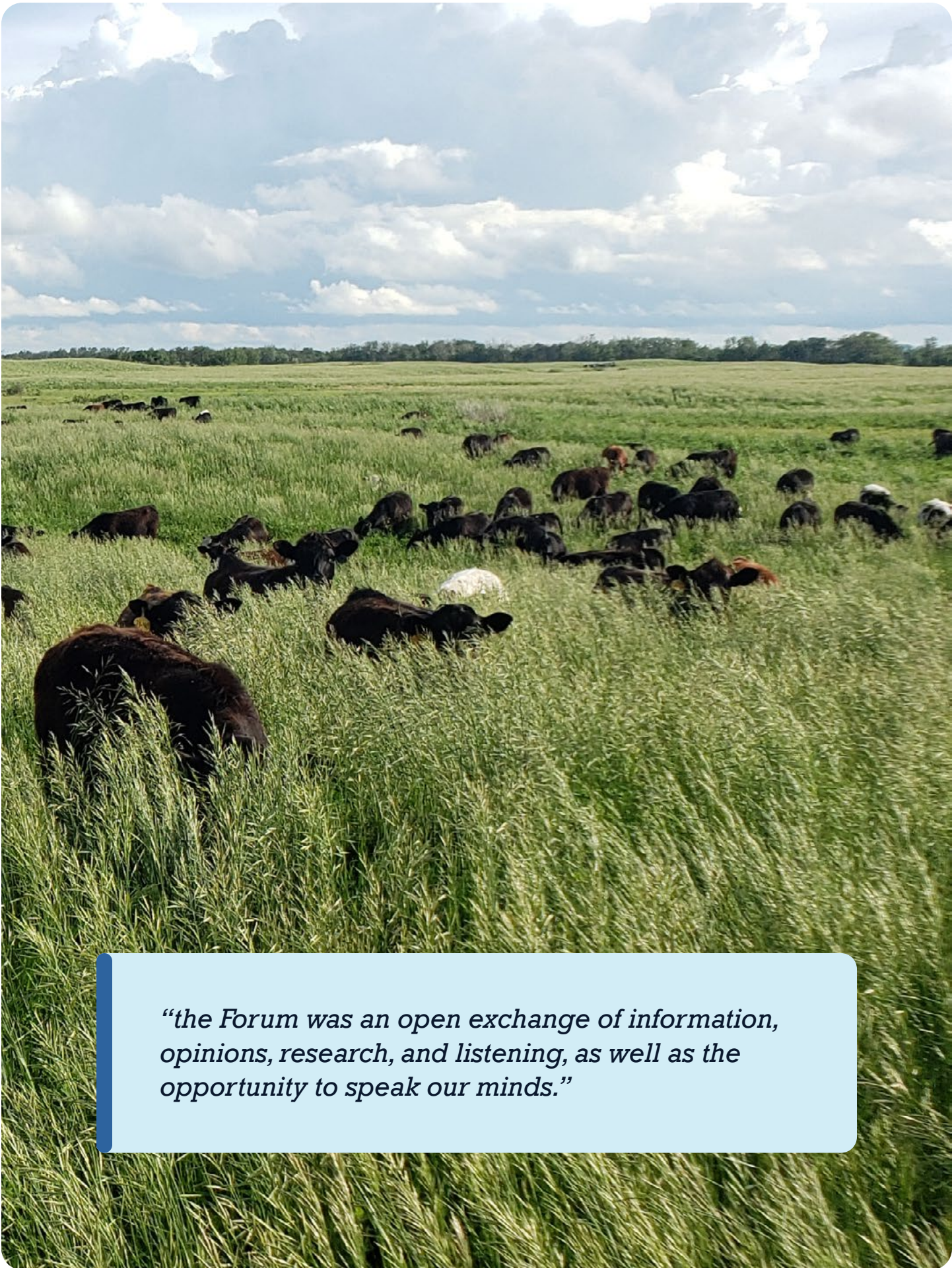
## Our mandate

on climate change mitigation was welcomed by some members, but others were strongly opposed to the idea that reducing greenhouse gas emissions was necessary or desirable. Opinions on climate change were strongly held and diverse—some saw global warming as a dire threat to Prairie agriculture and global human civilization, while others described carbon dioxide as the “gas of life” and the world’s focus on climate change as a dangerous distraction.

To accommodate these diverse views, and in an attempt to find common ground, Forum members adopted a set of agreements at the outset of the second meeting in Saskatchewan. These agreements would allow them to develop consensus-based recommendations:

1. Forum members have a wide range of views on climate change. We agree that the purpose of the Forum is not to change each others’ minds about climate change or to determine who is right or wrong.
2. We agree that farmers and ranchers can adopt practices that have positive environmental and economic outcomes. There are practices that can improve soil health, enhance biodiversity, protect natural habitat, increase profitability, improve water and air quality, reduce greenhouse gas emissions, sequester carbon, improve farmer livelihoods, and more.
3. We agree that our goal as a Forum is to identify the practices and policies that maximize these positive environmental and economic outcomes, while recognizing that we don’t all place the same value on each outcome.

These agreements meant that the mandate of the Forum became less focused on climate change mitigation and adaptation, and more broadly focused on sustainability and good land stewardship. Members deliberately agreed to strive for recommendations that would create a range of positive outcomes, both environmental and economic. Some Forum members who desired strong climate action supported the recommendations because many of them would lead to lower greenhouse gas emissions and more climate resilience. Some who opposed a climate change focus supported the recommendations because they would lead to more sustainable and profitable farms and ranches. All the members shared a commitment to long-term, sustainable land stewardship, and a strong sense of responsibility to future generations.



*“the Forum was an open exchange of information, opinions, research, and listening, as well as the opportunity to speak our minds.”*



## MEMBERS' REPORT ON THE PRAIRIE FARMER & RANCHER FORUM

### Who we are and who we represent

*"We are farmers and ranchers who, by the way we manage and steward our land and production systems, can have a large and positive impact on our environment and climate."*

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*"We want to uphold our many different types of farming (conventional, organic, regenerative) and livestock systems, and find areas of practical improvement for the various practices that work in our highly variable conditions that benefit the environment and Canadian Prairie farmers."*

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*"...the 36 farmers and ranchers at the Forum are from all sizes and types of farms and from across the Prairies. To have any consensus on the recommendations that we have provided is truly amazing just because of the diversity that we represent. The common ground that unites us, such as soil health, natural habitats, nitrogen management etc, shows that we as farmers want to be part of the solution. Many of us are doing what we can on our farms already and we want to be acknowledged for our practices."*

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*"Thirty-six farmers and ranchers with very diverse operations came together by putting their own agenda aside and working on principles to encourage all landowners to farm or ranch in a way to improve the health of their soils, water, and environment for the world they live in. In doing so, hopefully we will lay a future where all species on earth will thrive."*

## Why we volunteered

*"I believe, as farmers and ranchers, we are stewards of the land for future generations. As technology and advances in agriculture happen, I feel producers can continue to learn and work together for solutions for the future."*

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*"I volunteered for this Forum to learn and, hopefully, add an alternative perspective to the conversation."*

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*"The Forum interests me because of our new focus on regenerative and sustainable farming, and I am hoping to gain new information and a networking base."*

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*"I am really interested in interacting with other Prairie folks about issues such as climate change related to agriculture, public perception, and other concerns."*

---

*"I volunteered in order to meet people from western Canada and discuss upcoming issues"*

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*"I have a keen interest in agriculture and its connections to science and the environment."*

## Our guiding principles

The members of the Prairie Farmer & Rancher Forum envision a sustainable and prosperous future for agriculture on the Canadian Prairies. Forum members kept the following guiding principles in mind when considering specific recommendations.

### **Farmer and rancher led**

Prairie producers are best placed to chart a path to greater sustainability. Farmer and rancher leadership should be recognized, supported, and enhanced.

### **Sustainability focused**

Sustainability includes environmental, financial, and social sustainability. The most important opportunities lie in systems and practices that increase both environmental performance and profitability.

### **Prairie context**

Prairie agriculture is unique in Canada and the world, with distinct opportunities and challenges. The distinctive contexts of Prairie farming must always be front of mind.

### **Innovation**

Farmers and ranchers have made great strides in increasing the efficiency and sustainability of their operations. These innovations should be recognized, celebrated, and spread. Innovative farmers and ranchers can be mentors and teachers, sharing best practices and new ideas.

### **Continuous improvement**

There is much more that needs to be done to build on our past successes. Farmers and ranchers are constantly learning and must strive to continuously improve stewardship on their operations.

### **Collaboration**

Farmers and ranchers are the foundation of the Canadian agri-food system and contribute to Canadian society in important ways. We will be successful by working together with our fellow farmers and ranchers, governments, food companies, consumers, communities, and other stakeholders.

## Our recommendations

### Process

We developed a total of 36 recommendations, organized in six different topic areas, and a cross-cutting category:

- **Cross-cutting**
- **Measurement**
- **Livestock management**
- **Soil health**
- **Natural habitat**
- **Nitrogen management**
- **Energy**

We added context to each topic by describing the opportunity it represents for our sector, what we are trying to improve, why this topic is important, and how it can be leveraged to achieve desired outcomes.

Each recommendation was developed through a consensus building process called "[Gradients of Agreement](#)," described in the Appendix. Keeping our guiding principles in mind, recommendations were first crafted by small topic-specific discussion groups, who then brought their recommendations to the whole Forum for feedback and discussion. The recommendations were refined and eventually submitted to a full Forum vote for formal adoption. Each recommendation had to have consensus support from every Forum member.

Forum members had the option to abstain from voting if they felt the recommendation was outside their own knowledge and experience. For example, in some instances ranchers abstained from voting on recommendations specific to annual cropping, and vice versa.

Each numbered recommendation was adopted through consensus by all Forum members who attended the third meeting. Forum members also explored potential instruments and strategies for implementing the recommendations. This content is captured as background or commentary following each recommendation in a grey text box. **The Forum did not attempt to reach consensus on potential policy instruments and implementation strategies, therefore it is important to note that ideas in the grey text boxes are not fully supported by all Forum members.** We include this content in our report to better contextualize our recommendations, and to share our ideas of policy instruments and strategies that could be further explored to implement our recommendations.

## Cross-cutting

Cross-cutting themes that emerged early in our deliberations include:

- The need to foster awareness and offer educational opportunities on sustainability issues across the sector and to multiple stakeholders, including producers, consumers, governments, and other players in the value chain.
- The importance of establishing baselines and ongoing measurement in order to set targets and monitor progress.
- The influential support offered by peer-to-peer mentoring when considering, experimenting, or adopting new practices.
- The valuable insight and unique approach provided by farmer and rancher-led research in addressing our most challenging on-farm and on-ranch issues and opportunities.
- A desire for more effective coordination and stronger farmer and rancher leadership across the sector.

These cross-cutting themes led to the development of the following recommendations.

### **1. Establish baseline measurements for each priority category (Soil health, Natural habitat, Livestock management, Nitrogen management, Measurement, Energy) to assess future performance.**

*Baseline measurements and monitoring progress will help us better capture and tell our story. Baseline measurements are required both for individual farmers and ranchers, and for our sector as a whole. On our farms and ranches, measures which are specific to our circumstances are necessary to allow each producer to have a baseline to measure progress. The measures should also provide clear information to customers who are asking about how our products are produced. For our sector, baseline measures need to be developed to reflect current production practices. Many measurement systems and protocols have already been developed, but farmer and rancher engagement and input is required to create a comprehensive measurement system that works for producers.*

### **2. Encourage public funding of regional research centres and organizations.**

*We need research to be more reflective of local conditions, with flexible and responsive approaches that are well suited to the diversity of our operations. Regional research centres and organizations have the potential to test and demonstrate what is possible to advance ideas with merit.*

**3. Expand and continue to support producer-to-producer networks.**

*These networks allow for immediate information transfer and ongoing support that can evolve with emerging on-farm and on-ranch needs and opportunities.*

**4. Increase public funding to support farmer and rancher-directed research.**

*Programs such as Living Labs are a good example of the type of farmer and rancher-directed research we want to see augmented.*

**5. Ensure transparency in academic funding.**

*Private funders, as well as governments, may all have their own specific research objectives. We are concerned that innovative ideas that have potential to improve environmental outcomes are not being prioritized.*

*Farmers and ranchers also want to know and trust that researchers and academics are not restricted in sharing the results of their work. An academic community that feels free to challenge both private and public norms is essential.*

**6. Ensure that the funders do not influence curricula at universities and colleges.**

*Academic curricula should evolve to reflect the direction of the latest research, and be less tied to the priorities or perspectives of funders. For example, some Forum members were concerned that innovations that are not consistent with increased fertilizer usage may not receive adequate attention because of academic funding support from chemical and fertilizer companies. Concern was also expressed that governments could influence university activities.*

**7. Create a farmer and rancher organization (or support an existing farm and ranch organization) to ensure good communication with all stakeholders and ensure farmers and ranchers are included in sustainability discussions.**

*Market opportunities designed to drive environmental outcomes are fast emerging, however farmers and ranchers do not feel they have a seat at the table. This needs to change.*



## Measurement

There is growing interest in the quality of our products and how they are produced. Many different sustainability standards and reporting requirements are being developed across the sector, and new regulations are being introduced, without adequate input from Prairie farmers and ranchers. By developing a better understanding of measurement options and developing approaches that will work on Prairie farms and ranches, farmers and ranchers will be better positioned to “tell our story.” This may create opportunities to help develop accountability measures that can be integrated across the value chain, which could be useful for the whole sector.

### Potential benefits

- Enhanced data security/ownership
- Improved on-farm decision making
- Access to carbon markets
- Ability to meet market demands/trends
- Access to price premiums

### 8. Adapt and develop modelling systems that better reflect the differences in regions and practices, and that accurately measure the impact of changes in practices on sustainability metrics at the farm and ranch level.

*Modelling systems have the potential to add value to Prairie agriculture in a number of ways. For individual farmers, it is possible for good models to be a tool to measure improvement. For the sector, or groups within the sector, modelling has the potential to show the environmental impacts of subsets of farmers and ranchers. To achieve success, models must reflect the impacts of different practices in a specific region or environmental area. Models must be relatively easy to use and possible to aggregate. Concerns were expressed that current models are not robust enough, and that current measurements are not timely and not sufficiently specific to regions.*

### 9. Encourage farmers and ranchers to develop goals and measure quality of life in addition to other measurements.

*Sustainability involves the health of producers as well as financial and other metrics of sustainability.*

## Livestock management

Livestock provide important ecological goods and services. Although livestock production is often portrayed as an important driver of climate change, Canadian livestock emissions have declined while maintaining similar levels of production. There are opportunities to further reduce these emissions and enhance ecosystems with livestock management approaches designed to enhance profitability and provide ecological benefits.

### Potential benefits

- Improved animal health
- Increased efficiency of protein production
- Improved nitrogen, mineral, and water cycles
- Increased efficiency of resources (water, marginal, and protected land, etc.)
- Improved soil health
- Increased biodiversity
- Greenhouse gas emission reduction
- Carbon sequestration
- Protection of habitat
- Improved food security and nutrition

### 10. Recognize the value and benefits of grazing animals and look at the entire production system when considering methane emissions in order to better clarify and understand the benefits.

*As a sector, we need to better tell the story of how keeping grasslands intact and having grazing animals on the landscape contributes to healthy ecosystems. It can also help us better position livestock farmers as part of the solution to the food system issues we face, such as food insecurity, environmental degradation, and human health concerns.*

*Our Forum discussed how cattle provide important ecological goods and services that are currently misunderstood, while negative impacts are exaggerated. Grassland ecosystems have developed over thousands of years with ruminants as keystone species to keep ecology healthy and functioning. Domestic livestock can continue to serve this role.*

*Advancing this recommendation requires more research on the potential benefits of livestock integration and a full understanding of all the impacts of cultured (lab grown) meat production and consumption. It will also require more education of producers, governments, and consumers. Schools are fertile grounds to explore how grazing animals can provide both nutrition and ecological goods and services.*

**11. Encourage the integration of crop and livestock production by fostering collaboration between grain farmers and ranchers.**

*By optimizing nutrient cycling, the integration of crop and livestock production can help raise livestock and grow crops more sustainably. It can also help reduce tillage in organic cropping systems while reducing herbicide use in conventional cropping.*

*More integration of crop and livestock production systems will require more research in this area. Our Forum is interested in further exploring the ecological and financial benefits of systems integration for livestock producers and crop farmers alike. Encouraging demonstration projects and networks among existing organizations could help connect producers who want to work together on developing integrated livestock and cropping systems.*

**12. Support grazing management that improves ecosystem health and producer profitability.**

*Grazing management that bolsters ecosystem health has the potential to also increase the productivity and profitability of our operations. Continuous improvement of grazing management can be achieved through more producer education, as well as targeted research and incentives such as cost-share funding for fencing and watering systems, as currently supported by the On-Farm Climate Action Fund (OFCAF). Poor grazing management currently exists throughout the Prairies, and this is something the sector can significantly improve upon.*

*Other mechanisms and strategies include encouraging the use of conservation easements, where appropriate management is being practiced, and retaining the state of natural crown lands used for grazing while ensuring beneficial grazing practices on these lands. Crown lands used for grazing should not be sold.*

**13. Improve and expand Business Risk Management (BRM) programs for livestock producers and explore opportunities to use these programs to incentivize Beneficial Management Practices (BMPs).**

*Current programs are insufficient to help manage the risks inherent in the unstable and volatile situations encountered by livestock farmers. In the face of economic, political, or environmental instability, supporting risk management can help prevent the conversion of grasslands to cropland.*

*More specifically, Livestock Price Insurance is very expensive and not adequately subsidized by governments. AgriStability does not function adequately for livestock farmers.*

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*Better rainfall monitoring for forage insurance programs, as well as insurance premiums for forage that are comparable to grain and offer similar coverage, are opportunities to support risk management for livestock farmers. A credit system to incentivize the adoption of Beneficial Management Practices (BMPs) could be explored as part of the suite of Business Risk Management (BRM) programs.*



## Soil health

Soil fertility and crop health depend on factors such as soil microbiology, organic matter, and water holding capacity. Prairie farmers have made significant improvements to restore and promote soil health, including reduced tillage and the reduction of summer fallow. Further improving and rebuilding our soils presents opportunities to improve farm profitability, increase resilience, and sequester carbon.

### Potential benefits

- Increased yields
- Input cost savings
- Increased productivity
- Increased water holding capacity
- Drought mitigation
- Flood control
- Erosion control
- Greenhouse gas emission reduction
- Carbon sequestration
- Crop disease and pest resistance
- Product quality
- Nutrient quality

### 14. Support farmer and rancher efforts to increase enduring organic carbon in their soils. Recognize the expanding research on more stable, long-term forms of soil organic carbon and the carbon cycle as important indicators of soil sustainability and health.

*Building soil organic matter and therefore soil organic carbon (also known as carbon nutrient cycling) improves food system resilience and sustainability, as it can generate yield increases and improve drought tolerance. Where possible, we are interested in exploring how to measure the labile and more stable forms of soil organic carbon, and how these are impacted by management practices. We also discussed how more stable forms of soil organic carbon, including microbial resistant glomalin, mineral associated organic carbon, and lignified roots deep in subsoils, among others, need to be better understood.*

*Focusing on soil organic matter, and therefore soil organic carbon, has the potential to introduce better policy decisions. Supportive mechanisms to consider include modelling improvements, targeted funding and research, and tracking on-farm productivity performance.*

*This recommendation can also help drive long-term enduring carbon sequestration and storage, which could be an important factor for meeting market opportunities associated with reducing greenhouse gas emissions. The Forum heard that many food companies are striving to reduce greenhouse gas emissions in their supply chains, and that other companies are developing soil carbon offset schemes that pay farmers for the carbon they sequester in their soils. More specifically, the Forum learned how Scope Three emissions are a key concern for food manufacturers as these companies seek to comply with reporting standards.*

15. Identify soil tests that will act as the standard metrics for measuring soil health that include soil organic matter, soil organic carbon, microbiology, and mycorrhizal fungi, in addition to existing testing protocols.
16. Make available standardized sampling methods for soil testing, and train the agricultural community on proper sampling techniques.

**Applies to 15 and 16:**

*Soil testing is essential to good soil health management and appropriate fertility recommendations. It also generates data that can help us to better tell our story and communicate our needs and successes as a sector. Standardized soil testing methods, consistent sampling techniques, and peer-reviewed nutrient recommendations based on on-farm and on-ranch trials will help us obtain the data that can be used to measure our potential contribution to reducing Scope Three emissions, which could improve market and sales access. It will also help us economically manage our inputs. As a management and communication tool, results from standardized soil testing can also be used to exchange information and identify resources with our peers and networks.*

*Soil testing could be provided through government services by offering, for example, one free soil test per quarter section per year, with data confidentiality available. Existing farmer organizations could also support soil testing through funding, results interpretation, and educational support.*

*Soil testing methods, sampling techniques, and nutrient recommendations should be reviewed periodically to evolve with new research results and knowledge. Collaboration among farmers, agronomists, government and industry groups has the potential to strengthen the process of determining which methods and techniques should be recommended.*

17. Research existing and new agricultural products on the market such as fertilizers, fungicides, herbicides, and insecticides and their impacts on soil, water, human and ecosystem health.
18. Research the effect of fertilizers and insecticides on crop mycorrhizal relationships and root growth inhibition, soil biology, and nutrient cycling.

**Applies to 17 and 18:**

*Research topics of interest include soil microbial respiration, root growth inhibitors, mycorrhizal fungi interactions, nutrient cycling, soil organic matter, the impact of agricultural practices on insect and bird populations, human-wildlife diseases, and wildlife health. Whether fertilizers stimulate soil bacterial respiration of soil organic matter into carbon dioxide, or if fungicides possibly inhibit mycorrhizae, are other topics of interest. We would also like to see new*

*products tested for their ability to support practices that reduce greenhouse gas emissions. New research should be stacked into existing testing protocols, where possible.*

*While research costs should primarily be covered by the industry, directing public funds to existing research agencies could help expedite the process of testing and disseminating results. We want research findings to be shared with the agricultural community.*

### **19. Ensure that any mechanisms or products that come to market are properly tested and validated, ideally through regional field trials, ensuring they can deliver the outcomes they claim. Limitations of products should be clearly labelled.**

*Product safety and food safety are priorities, and we want to ensure new products do not contain toxins or pathogens. Ineffective products or mechanisms can also have negative financial impacts on our operations.*

*Adequate testing and validation has the potential to drive innovation around new products that perform well. Clear labelling should provide independent proof that products are what they claim to be. Regulatory bodies should develop and enforce these standards.*

### **20. Improve incentives to establish perennials to help address soil health and improve marginal lands, and to prevent the eutrophication of water bodies and rivers caused by excess runoff.**

*Perennials can help maintain soil health, protect wildlife habitat, and provide other ecosystem services, such as improved water quality. Establishing perennials also has the potential to improve marginal land profitability by providing carbon sequestration opportunities, and to generate biomass for energy sources.*

*Incentives could be provided by multiple partners, including the food industry, government, conservation groups, sector organizations, and farmers. Expanding existing programs like the On-Farm Climate Action Fund (OFCAF), and making the programs more flexible and the approval process simpler, could help farmers establish more perennials.*

*The food industry should be involved in discussions about program development and funding, and developing marketing messages around these initiatives.*

**21. Support research regarding, and expand the use of, intercropping, cover cropping, polycropping, relay cropping, and animal integration.**

*Public funds to research these practices on-farm and on-ranch should be substantially increased. Farmers and ranchers, academics, and governments should work together to identify research priorities.*

**22. Require traceability and composition of fertilizers from source to on-farm and on-ranch, and ensure farmers and ranchers have access to that information.**

*Regulatory bodies with adequate capacity, as well as ongoing regulation updates and amendments, are necessary to ensure transparency in fertilizer composition and supplies.*

**23. Develop programs to incentivize soil health improvements.**

*Soil organic matter might be used as the tracking metric for improvement, although this approach may not be suitable for all contexts. Some Forum members were also interested in exploring how Business Risk Management (BRM) programs could be used to incentivize practices that improve soil health.*





## Natural habitat

The destruction of wetlands, trees, and grasslands is ongoing in Prairie agriculture, and contributes to a decline in natural habitats and the loss of biodiversity. However, many farmers and ranchers are working hard to reverse that trend, recognizing that wetlands, trees, and grasslands on agricultural landscapes are valuable carbon sinks and provide numerous ecological and economic benefits.

### Potential benefits

- Increased biodiversity
- Pollinator habitat
- Erosion control
- Water retention
- Drought mitigation
- Greenhouse gas emission reduction
- Carbon sequestration
- Flood control
- Preservation and/or improvement of water quality
- Protect species at risk

Natural habitat provides wildlife habitat and can provide important services on farmland, known as ecological goods and services. These include such things as crop pollination, natural pest control, improved water quality and storage, and carbon sequestration, as well as cultural services such as improved spiritual, mental, and physical health. Given there are also economic incentives to remove natural habitat on farms and ranches, it is important to actively encourage the preservation of natural habitat.

## 24. Encourage and assist retention, building, and restoration of habitat, including wetlands, riparian areas, native grass, forest, and shelter belts.

*Our Forum identified several instruments that could be used to implement this recommendation. They include:*

- *Carbon credits and other supply chain insets or credits, such as price premiums linked to emissions reduction*
- *Set-asides and conservation easements*
- *Reverse auctions*
- *Payments for ecosystem services*
- *Tax incentives*
- *Programs to encourage landowners other than farmers and ranchers, including public land, to devote a portion of their land for natural habitat*

**25. Ensure all levels of government enforce existing regulations and legislation in place to protect natural habitat.**

*Several Forum members heard from conservation officers in their communities that additional resources and capacity was needed to improve enforcement. Some Forum members wanted to improve and develop new regulation and legislation because they believed that current legislation and regulation is insufficient to protect natural habitat.*

**26. Advocate for relevant entities to implement terminology changes by renaming “wasteland” to new categories, for example “natural habitat” and “yard site.”**

*This is a first step toward explicitly recognizing that land not under production can be ecologically valuable. This change can contribute to shifting perspectives on the potential benefits for natural habitat that can be derived from these lands.*

*Any modification should not result in negative tax implications for farmers and ranchers, and there may be opportunities to introduce positive tax incentives that would encourage natural habitat preservation.*

**27. Explore opportunities to generate revenue from wildlife habitat to incentivize preserving natural habitat.**

*Implementing this recommendation will likely require a province-specific approach, given different opportunities exist across Prairie provinces. We are generally interested in supporting farms and ranches to develop alternative revenue streams that contribute to protecting and enhancing natural habitats.*

**28. Encourage municipalities (both rural and urban) to capitalize on opportunities to enhance natural habitat.**

*A number of mechanisms and partnerships could serve this purpose, including expanding natural habitat on municipal lands, increasing public access to natural habitat on municipal lands, and bylaw enforcement.*

**29. Develop programs to incentivize naturalization of marginal lands.**

*We are interested in exploring the creation of a habitat reserve program. Existing examples to draw from include the Conservation Reserve Program in the United States and the Nature Conservancy Prairie Grasslands Action Plan. We also saw an opportunity to build on the Nature Smart Climate Solutions program administered by Environment and Climate Change Canada.*



## Nitrogen management

Nitrogen is a key and costly component of food production. Producers recognize the importance of nitrogen management and focus on increasing nitrogen use efficiency and reducing nitrogen loss. 4R Nutrient Management is the cornerstone of nitrogen management. Producers need more innovative solutions to further enhance stewardship. We want to build solutions that work across the food system nationally and globally.

### Potential benefits

- Input cost savings
- Greenhouse gas emission reduction
- Increased profitability
- Improved water quality

### 30. Promote greater adoption of 4R Nutrient Management.

*Adoption of 4R nutrient management can be increased through financial incentives such as accelerated depreciation on purchase of new equipment, as well as updated and standardized testing and measurement approaches used in nutrient application recommendations. We also identified opportunities for additional research in the integration of organic fertilizers in the 4R nutrient management framework, such as feather meal, fish, amino acid products, and other waste products.*

### 31. Conduct more research on how and where intercropping and cover cropping can lead to reduced fertilizer use.

*This could be implemented by providing funding to farm groups, better disseminating past and new results, expanding Living Labs, and encouraging levy collecting groups to focus more on this area of work.*

### 32. Advance research on pulse crop diseases and pulse crop adaptation to allow more and continued integration of legumes into crop rotations.

*Diseases that affect pulse crops are limiting their use on the Prairies. We recognize that this work is already a priority of pulse levy collecting organizations. Including pulses in rotations introduces several benefits for producers and environmental public goods, and we would like to see more public funds directed to this area.*

**33. Require all major urban centres to process their sewage or industrial waste in a manner that makes the nutrients safe and available for agriculture to complete the nutrient cycle.**

*The majority of nutrients imported into urban communities are lost through sewage or landfill. Urban communities, as consumers of food, have a responsibility to find solutions that will contribute to completing the nutrient cycle. Agriculture also has a role to play when it comes to closing the nutrient loop. For example, sewage can be treated to produce fertilizers, and food waste can be repurposed into compost, fuel production, or animal feed. Adequate public investment is critical to ensuring the safety of processes and end products. We want to shift away from thinking about sewage and other wasted products as “waste management” and toward “renewable resource management.”*



## Energy

Energy transition is already happening across industrial sectors and will likely accelerate. Agriculture is relatively less advanced on the energy transition pathway than other sectors. Farmers and ranchers have unique needs due to the nature of their operations and equipment. Field power units, transportation, service vehicles, heating, grain drying, and other energy requirements need to be considered in the energy transition moving forward. Some current environmental requirements on agricultural equipment are ineffective, cumbersome, expensive and impractical. Farmers and ranchers must therefore be at the table providing suggestions to help shape and guide the energy transition in a direction that makes sense at the farm level and integrates benefits across the supply chain.

### Potential benefits

- Fuel cost savings
- Greenhouse gas emission reduction
- Increased revenue from fuel and energy sales

### 34. Support farmers and ranchers to transition to lower emissions energy sources.

*We want to encourage the rapid transition to lower-emissions energy sources on farms and ranches, utilizing existing technology and equipment that is already available on the market. Examples include lower emissions heating systems (biomass, electric, methane, geothermal), electrification of stationary equipment and light vehicles, on-farm renewable energy generation, and fuel efficient vehicles and machinery.*

*Education for farmers and ranchers (on what's available and how to convert to alternative fuels, for example) as well as on-farm and on-ranch demonstrations, would support this transition. Other supportive measures include improving rural charging infrastructure for electric vehicles, revising insurance regulations to ensure coverage for on-farm energy production and use, and tax incentives or subsidies for energy efficiency retrofits or new equipment.*

### 35. Expand research into on-farm and on-ranch fuel production using renewable energy (e.g. biodiesel, ammonia, hydrogen, etc.)

*More farmers and ranchers should have the option to make their own fuel using renewable energy. Policy instruments such as tax incentives to encourage private sector investment in research and development, direct incentives for on-farm and on-ranch trials, and supporting publicly-funded research at Canadian universities, could help drive research into on-farm and on-ranch fuel production using renewable energy.*

### 36. Remove barriers and provide incentives for on-farm and on-ranch renewable energy production.

*Many regulatory and technical barriers exist to developing on-farm and on-ranch renewable energy generation, such as wind and solar. Distinguishing between farmer and rancher-initiated projects and large industrial projects could remove some of these barriers. Local technical support for renewable energy installation and service is often lacking. This could be remedied in part by:*

- *Providing education for farmers and ranchers on how to develop and install renewable energy projects*
- *Increasing regulatory size limits on electricity generation capacity*
- *Increasing the price for electricity sold into the grid*
- *Subsidizing on-farm and on-ranch battery storage*
- *Increasing research and development into better on-farm and on-farm electricity storage*
- *Upgrading or improving rural electricity infrastructure*





# MEET THE MEMBERS



**Sharon Andreas**  
Sheho, SK  
Oilseed and grain farming,  
cattle ranching



**Allan Duncan**  
Austin, MB  
Oilseed and grain farming



**Russell Bayliss**  
Carnduff, SK



**Steve Guenther**  
Osler, SK  
Oilseed and grain farming



**Quinton Cole**  
Creelman, SK  
Oilseed and grain farming,  
cattle ranching



**Andre Harpe**  
Valhalla Centre, AB  
Oilseed and grain farming



**Ralph Davidson**  
Alliance, AB  
Cattle ranching and farming



**Tom Harrison**  
Craven, SK  
Cattle ranching and farming



**Scott Duguid**  
Arnes, MB  
Oilseed and grain farming,  
cattle ranching, leaf cutter  
bees and forage seeds



**Harvey Hollman**  
Penhold, AB  
Cattle ranching and farming



## Meet the members



**Jeanette Jackson**  
Kindersley, SK  
Oilseed and grain farming



**Perry Nelson**  
Cardogan, AB  
Cattle ranching and farming



**Audrey Jones**  
Medstead, SK  
Oilseed and grain farming,  
cattle ranching



**Garry Richards**  
Bangor, SK  
Cattle ranching and farming



**Heather Kerschbaumer**  
Fairview, AB  
Oilseed and grain farming



**Marcus Riedner**  
Didsbury, AB  
Cattle ranching and farming,  
poultry and swine



**Joel Kienle**  
Quill Lake, SK  
Cattle ranching and farming



**Grant Rigby**  
Killarney, MB  
Oilseed and grain farming



**Arlie Laroche**  
Vanscoy, SK  
Oilseed and grain farming,  
cattle ranching, sheep and hog  
production, vegetable and fruit  
production, agritourism



**Bruce Ross**  
Souris, MB  
Oilseed and grain farming



**Terry Levicki**  
Andrew, AB  
Oilseed and grain farming,  
vegetables and berries



**Otto Rottier**  
Athabasca, AB  
Oilseed and grain farming



**Michael Muscoby**  
Windthorst, SK  
Oilseed and grain farming



**Sam Sinclair**  
Strathclair, MB  
Oilseed and grain farming



**Bill Nell**  
Francis, SK  
Oilseed and grain farming,  
cattle ranching, spice crops  
(mustard, caraway, coriander)



**Robert Smith**  
Sidney, MB  
Cattle ranching and farming

## Meet the members



**Philip Sobkow**  
Calder, SK  
Oilseed and grain farming



**Norbert Van Deynze**  
Somerset, MB  
Oilseed and grain farming



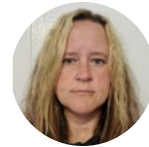
**Carl Stewart**  
Oakville, MB  
Oilseed and grain farming



**Dana Vos**  
Maple Creek, SK  
Cattle ranching and farming



**Stu Thiessen**  
Hepburn, SK  
Cattle ranching and farming



**Stacey Wiebe**  
Canora, SK  
Oilseed and grain farming,  
cattle ranching



**Ryan Thompson**  
Beechy, SK  
Oilseed and grain farming



**Dolores Zelinski**  
Lestock, SK  
Certified Organic Grain Farm



**Peter Tokar**  
Minitonas, MB  
Oilseed and grain farming,  
cattle ranching

One Forum member decided to step down from the process a few days before Meeting #3. The Forum concluded with a total of 35 farmers and ranchers.



# FORUM PROGRAM

## Program

The Prairie Farmer & Rancher Forum brought together a broadly representative group of 36 randomly selected Prairie farmers and ranchers for three separate two and half day meetings of learning and deliberation. Forum members served as volunteers. They were asked to work on behalf of the Prairie agriculture sector and to consult with their agriculture networks and communities between meetings to solicit feedback and identify emerging questions as the work of the Forum unfolded.

### Meeting #1: January 3–5, Manitoba

On Wednesday, January 3, the 36 members of the Prairie Farmer & Rancher Forum traveled to Elkhorn Resort, near Riding Mountain National Park, Manitoba, and met for the first time. Mary Smillie, the Forum Chair, welcomed everyone and introduced herself and the two Forum co-leads, Ian McCreary and Gordon Bacon. In table groups of six, Forum members were asked to identify the diversity within their table group. She then challenged the whole group to identify how the diversity would both be challenging and necessary to the outcomes of the Forum. The chair also explained that the desired outcome of Meeting #1 was to start building a common understanding of the issues and opportunities and how Forum members would work together.

Dr. Mario Tenuta (University of Manitoba), who supported the Forum as the main scientific advisor, provided a summary and overview of the trends regarding greenhouse gas emissions in agriculture, focusing on carbon, livestock, nitrogen, and energy. In table group discussions, Forum members reflected on this presentation in light of our mandate, and explored how to foster trust and make decisions as a

## Forum program

group. An evening panel discussion with Kim McConnell (founder and former CEO of AdFarm) and Courtney Stange (Sustainability Manager at Viterra), focused on how sustainability considerations are shifting the global agricultural market and introducing opportunities to maintain or build on our strengths.



On Thursday, January 4, we heard presentations from Dr. Cameron Carlyle (University of Alberta) on Prairie grasslands, Dr. Mario Tenuta (University of Manitoba) on Prairie crop lands and nitrogen, Dr. Bart Lardner (University of Saskatchewan) on livestock, and Dr. David B. Layzell (University of Calgary) on energy. Each presentation was followed by table group discussions to identify what information stood out, what opportunities came to light, and what else Forum members wanted to learn about. In the evening, we heard from David Rourke (grain farmer in Manitoba) about his own farm operations and PhD research looking at Beneficial Management Practice (BMP) adoption across the Prairies. Forum members were invited to share their on-farm or on-ranch best practices.

On Friday, January 5, the Forum focused on identifying priority issues and next steps to better understand challenges and opportunities. We also decided on key work to be conducted ahead of Meeting #2, such as engaging with our agriculture communities, connecting as a Forum between meetings, and ensuring adequate support and preparation ahead of the next in-person meeting.

### **Meeting #2: February 14–16, Saskatchewan**

Ahead of Meeting #2, the organizing team proposed a strategic discussion framework to advance the Forum deliberations under six priority areas identified in Meeting #1: Natural habitat, Soil health, Livestock management, Nitrogen management, Measurement, and Energy. We held a virtual session on measurement and improvement hosted by Forum Chair Mary Smillie and Co-Lead Ian McCreary on February 2 and a virtual session on variability and sustainability in Prairie agriculture with Dr. David Sauchyn (University of Regina) and Dr. Mario Tenuta (University of Manitoba) on February 9.

## Forum program

On Wednesday, February 14, Forum chair Mary Smillie welcomed everyone to Meeting #2 and explained that the desired outcome was to make significant progress toward developing recommendations. She also invited Forum members to reflect on and share what they learned between Meeting #1 and Meeting #2, as well as the new questions they brought to the table.



From Wednesday afternoon to Thursday afternoon, the Forum welcomed several presenters who spoke to the following topics. Each presentation was followed by table group discussions where Forum members reflected on what they learned and began forming recommendations.

- Measurement, with presenters from Agriculture and Agri-Food Canada, including Dr. Roland Krobel (Holos model), Dan McDonald (Agri-Environmental Indicators), and Dr. Michael Schellenberg (Living Labs).
- Natural habitat, more specifically Prairie grasslands and wetlands in agriculture landscapes, with Jeremy Hogan (Nature Conservancy Canada) and Dr. Pascal Badiou (Ducks Unlimited).
- Soil health, focusing on trends and opportunities for improvement with Dr. Jeff Schoeneau (University of Saskatchewan), and the soil microbiome with Dr. Bobbi Helgason (University of Saskatchewan).
- Livestock management, with Dr. Tim McAlister (University of Calgary).
- Nitrogen management, with Dr. Mario Tenuta (University of Manitoba).

On Thursday evening, we held a panel discussion with Saskatchewan producers Karlah Rae (producer of cereals, pulses, and canola) and Mark Hoimyr (cow/calf and direct-market grass fed beef, pastured pork, and honey producer), and Andrew Rushmere, Director of the Farmers for Climate Solutions [Farm Resilience Mentorship \(FaRM\) program](#).

## Forum program

On Friday, February 16, the last day of Meeting #2, Forum members focused on developing guiding principles and preliminary recommendations while identifying additional learning needs and objectives necessary to finalizing the recommendations at Meeting #3.

### **Meeting #3: March 13–15, Alberta**

Two virtual sessions were held between Meeting #2 and Meeting #3. On February 23, Robin Woodward (Carbon Asset Solutions) and Harvey Bradford (Field to Market Canada) presented on measurement and supply chains, and on March 8, Allen Williams and Blain Hjeertaas provided an overview of the services offered by Understanding Ag and the Regenified verification system developed in partnership with General Mills.



On Wednesday, March 13, Forum Chair Mary Smillie opened the final Forum meeting by rallying the Forum around our goal of finalizing the recommendations and other report content. We began by discussing who we engaged with and what we learned between Meeting #2 and Meeting #3, and by bringing forward new insights on draft recommendations for Forum consideration. We then heard a presentation from Dr. Alfons Weersink and Dr. Aaron De Laporte (University of Guelph) on agri-environmental policy instruments to explore various options to implement our draft recommendations, which was followed by table group discussions to capture insights or identify opportunities regarding the draft recommendations.

The organizing team presented the proposed process to draft and launch the Prairie Farmer & Rancher Forum Report. We talked about how Forum members would have

## Forum program

an opportunity to do a final review of the report and the resources and support Forum members could offer or wanted to receive to contribute to disseminating the report.

On Wednesday evening, we hosted an Alberta producer panel on innovative practices with guest speakers Carlene Schneider (purebred angus, direct to market sales of protein and produce) and Josh Fankhauser (cash cropping and cattle).



Thursday, March 14, and the morning of Friday, March 15, were dedicated entirely to finalizing the draft recommendations and presenting them to the Forum for review and formal adoption. Forum members first chose the topic they wanted to focus on, worked together to refine the recommendations at table group discussions, obtained and integrated feedback from other Forum members, and finally brought each recommendation for a final vote using the Gradients of Agreement method. As a result, 36 recommendations were officially approved by the Forum through plenary votes, and options to implement these recommendations were captured by table facilitators. On Thursday evening, Forum members enjoyed a celebratory dinner followed by a trivia game and time to socialize.

Friday afternoon was dedicated to celebrating our achievements as a group and sharing the highs and lows of participating in the very first Prairie Farmer & Rancher Forum. The Forum was officially closed at 2:30 p.m. on Friday, February 15.

## Resource people

Twenty-six experts shared their knowledge during and between Forum meetings, through virtual and in-person presentations. Forum members would like to thank each one of them for contributing their time and expertise to the Forum process.



**Dr. Pascal Badiou**  
Research Scientist with Ducks Unlimited Canada's Institute for Wetland and Waterfowl Research



**Jeremy Hogan**  
Director of Prairie Grassland Conservation with Nature Conservancy Canada



**Harvey Bradford**  
President of Field to Market Canada



**Mark Hoimyr**  
Owner and operator of Box H Farm (cow/calf and direct-market grass fed beef, pastured pork, & honey) in Gladmar, SK



**Dr. Cameron Carlyle**  
Associate Professor and Program Director (Plant Biosystems), Faculty of Agricultural, Life and Environmental Sciences at the University of Alberta



**Dr. Roland Krobel**  
Research scientist and ecosystem modeller focused on the Holos model at Lethbridge Research and Development Centre



**Dr. Aaron De Laporte**  
Research associate with the Department of Food, Agricultural and Resource Economics at the University of Guelph



**Dr. Bart Lardner**  
Ministry of Agriculture Strategic Research Program



**Josh Fankhauser**  
Co-operator of Lamb Farms Ltd (cash cropping and cattle) in Claresholm, AB



**Dr. David Layzell**  
Energy Systems Architect with the Transition Accelerator, Professor at University of Calgary, Director of Canadian Energy Systems Analysis Research (CESAR) Initiative



**Dr. Bobbi Helgason**  
Associate Professor in the Department of Soil Science at the University of Saskatchewan



**Dr. Tim McAllister**  
Principal research scientist in ruminant nutrition and microbiology at the Lethbridge Research and Development Centre in Alberta



**Blain Hjertaas**  
Holistic Educator, Hjertaas Farm (cattle) in Saskatchewan



**Kim McConnell**  
Founder and former CEO of AdFarm, Member of the Order of Canada



## Forum program



**Daniel McDonald**  
Sustainability Metrics team lead with Agriculture and Agri-Food Canada, manages operation & reporting of Agri-Environmental Indicators



**Dr. Jeff Schoenau**  
Professor of soil fertility and professional agrologist in the Department of Soil Science at the University of Saskatchewan



**Karlah Rae**  
Farm owner and operator (cereals, pulses, and canola) in Southwestern Saskatchewan



**Courtney Stange**  
Sustainability Manager at Viterro



**David Rourke**  
PhD Candidate, Zero Till Plus grain farmer at Minto Manitoba, Rourke Farms Ltd



**Dr. Mario Tenuta**  
Senior Industrial Research Chair in 4R Nutrient Management and Professor (Soil Ecology) at the University of Manitoba



**Dr. Dave Sauchyn**  
Director of Prairie Adaptation Research Collaborative, professor of Geography and Environmental Studies at the University of Regina



**Dr. Alfons Weersink**  
Professor with the Department of Food, Agricultural and Resource Economics at the University of Guelph



**Dr. Mike Schellenberg**  
Science lead for South of the Divide Conservation Action Program Inc, retired forage & rangeland scientist from AAFC Swift Current Research and Development Centre



**Dr. Allen Williams**  
Sixth generation family farmer and founding partner of Grass Fed Insights, LLC, Understanding Ag, LLC, and the Soil Health Academy



**Carlene Schneider**  
Owner of Verdue Media and Communications and Northline Farms (purebred angus, direct to market sales of protein, & produce) in Alberta



**Robin Woodward**  
Director of Carbon Asset Solutions Ltd



# FORUM DEVELOPMENT AND FACILITATION

## About Farmers for Climate Solutions

The Prairie Farmer & Rancher Forum is a project organized by [Farmers for Climate Solutions](#) (FCS), and is funded by Canadian foundations and philanthropic organizations.

FCS is a national, non-partisan farmer-led coalition working to advance policy and programming that supports farmers and ranchers to reduce emissions and build resilience in the face of climate change. Since its launch in 2020, FCS has been a leader in developing farmer-led recommendations to accelerate climate action in Canadian agriculture that have been adopted by governments. In 2022, FCS launched the [Farm Resilience Mentorship \(FaRM\) Program](#), a national field program providing a free, farmer-to-farmer learning hub with resources to help farmers and ranchers integrate [beneficial management practices](#) into their operations. By 2024, FaRM will have worked with 10,000 farmers across more than 5 million acres.

FCS believes that policy, programming, and industry solutions to climate change will come from farmers and ranchers. FCS puts the experiences and advice of farmers and ranchers at the heart of its work and continually adapts based on their perspectives.

### What Farmers for Climate Solutions learned

Farmers for Climate Solutions organized the Prairie Farmer & Rancher Forum in order to better understand the climate and environmental priorities of Prairie producers. FCS staff and board members recognized that a citizens' assembly process would be extremely time and resource intensive. Gathering a group of randomly selected farmers and ranchers to develop recommendations was also risky—once the Forum came together, FCS would have very little influence over what recommendations they would produce. At the same time, FCS recognized that our organization had not always done a good job of speaking to farmers and ranchers who are skeptical about the existence of climate change or who feel they are already doing enough. It was decided that the potential benefits of a citizens' assembly process were worth the risks and expense.

The Forum deliberately included farmers and ranchers with a wide range of views on climate change. Members ranged from those who do not believe in the existence of human-caused climate change to those who think that global warming is a dire and immediate threat to human civilization, with many gradients of opinion in between.

It became evident during the first meeting in Manitoba that opinions about whether climate change is happening or not were not going to change over the course of our meetings. Forum members had strong and deeply held beliefs around climate change, and many came from communities where opinions about climate change were very polarized. Expert presentations and arguments with other Forum members were not going to change anyone's minds.

It also became clear in the first meeting that while there were many things that Forum members disagreed on, there were many more upon which they all agreed. There was a strong sense of environmental responsibility in the group and a deep desire to be good stewards of the land. This commitment to stewardship was universal, regardless of each member's views on climate change. Spending many hours together over several days fostered a sense of camaraderie in the group and a desire to find common ground. At the outset of the second meeting, Forum members came to a formal agreement that they would not try to change each other's minds about climate change, but would focus instead on finding areas of consensus and common ground. This made it possible to develop a wide range of positive environmental recommendations, rather than arguing about one issue.

While the recommendations developed by the Forum are important, perhaps the most significant outcome of the Forum process from the FCS perspective is the realization that a diverse group of farmers and ranchers can come together and find consensus on a bold set of environmental priorities. Much is said about polarization and disagreement within the agricultural community in Canada, but there is much more that producers can agree on when given the chance to hear and get to know each other.

## Forum development and facilitation

FCS also learned that disagreement over the cause or importance of climate change does not necessarily prevent strong climate action. Many of the 36 recommendations put forward by the Forum would help reduce greenhouse gas emissions and increase climate resilience, but they also have many other environmental, economic, and social benefits. Forum members agreed on all 36 recommendations, even if they didn't always agree on which outcomes of those recommendations were most important. It is significant that the term "climate change" does not occur in any of the recommendations.

The farmers and ranchers most involved in FCS are deeply committed to climate action in agriculture, but most Canadian producers have other priorities. The Prairie Farmer & Rancher Forum made it very clear that these two groups have much more in common than we previously thought, and that, by choosing collaboration over confrontation, we can chart a prosperous and sustainable future for us all.

## Partners

### Collaborators

MASS LBP is Canada's recognized leader in the design of deliberative processes that bridge the distance between citizens, stakeholders, and government. MASS has designed and hosted more than 40 deliberative processes over the past 15 years, including many citizens' assemblies.

**MASS LBP**

### Funders

The project was funded through philanthropic support to [Farmers for Climate Solutions](#). We are grateful to Canadian philanthropy organizations who supported the Prairie Farmer & Rancher Forum.



## Organizing team

### Chair



**Mary Smillie** is a farmer, facilitator, and improvement advisor. Skilled with a wide variety of engagement methods, Mary works with people to help them better understand and improve their system of work. A nurse by training, Mary brings abundant experience to support people who want to lead and succeed at change-making.

### Project co-leads



**Gordon Bacon** has spent 30 years working in market development for the Canadian pulse industry and in the Western Canadian wheat and barley sector. He has previously worked for Alberta Agriculture, the Swift Current Research Station, and for former Minister of Agriculture Charlie Mayer.



**Ian McCreary** owns and operates McCreary Land and Livestock Ltd. in central Saskatchewan with his wife, daughter-in-law, and two sons. Their farm includes annual crops, grazing lands, hay land, and protects approximately 300 acres of trees and wetlands. Ian holds a Masters in Agriculture Economics and was a former research task force chair for FCS.

### Scientific advisor



**Dr. Mario Tenuta** is a professor in the Department of Soil Sciences and heads the Applied Soil Ecology Lab. His training includes a B.Sc. in Botany and Physical Geography, an M.Sc. in Soil Science, a Ph.D. in Plant Sciences, and Post-Doctoral research in Nematology. From 2006 to 2017 he served as the Canada Research Chair in Applied Soil Ecology. Mario is currently the Natural Sciences and Engineering Research Council of Canada (NSERC) Industrial Research Chair (IRC) in 4R Nutrient Stewardship.

### Farmers for Climate Solutions



**Karen Ross** is the Executive Director of Farmers for Climate Solutions (FCS). She has worked with farmers and policy makers on sustainable food systems for over 15 years, with a strong focus on supporting farmers to improve environmental outcomes and meet the challenges of climate change.



**Brent Preston** is the President of the FCS Board of Directors. He farms in southern Ontario, where he runs a wholesale vegetable operation serving the food-service industry. Brent is the co-founder of The New Farm Centre for Climate Action.



**Virginie Lavallée-Picard** is the Manager of Strategic Initiatives with FCS. Virginie brings her skills in project coordination and strategic planning to collaboratively develop initiatives that aim to realize the full potential of climate solutions in food and agriculture. Virginie co-owns Wind Whipped Farm, a mixed vegetables operation on Vancouver Island, British Columbia.



**Geneviève Grossenbacher** is the Director of Policy with FCS. Geneviève has spent the past 15+ years leading and contributing to projects, policy and government relations for sustainable agriculture in Canada and abroad. Geneviève co-owns Notre petite ferme, and has won several distinctions, including Canada's Outstanding Young Farmers' award (2021).



**Andrew Rushmere** is the FaRM Program Director with FCS. Andrew has farmed mixed vegetables in Alberta and British Columbia for over 13 years, and worked in the academic and not-for-profit sectors overseeing sustainable agriculture teaching and research programs. He is committed to advancing systems-level solutions with farmers.

# CONCLUSION

*“(Our Forum) was a collaboration of producers from varying backgrounds (operations, locations) who came with very diverse viewpoints and opinions. Diversity became our strength. We were able to find common ground in our concerns and our understandings. As we stopped to truly listen to others, we became more open to learning and researching the issues before us. The outside experts we were fortunate to hear from also informed our understanding to a large degree.*

*I hope that we have accomplished a greater common voice after our meetings than what we would have had before we began. I believe this experience really underscores the need for agriculture producers to do better to work together toward a common goal of sustainability for our sector.”*



# APPENDIX

## Glossary

**4R Nutrient Management:** 4R Nutrient Management is an approach developed by the fertilizer industry to apply the Right fertilizer at the Right rate, at the Right time and in the Right place. This approach aims to enhance production goals, farm profitability, and environmental sustainability.

**Beneficial Management Practices (BMP):** Any management practice that reduces or eliminates an environmental risk.

**Glomalin:** Glomalin is produced by arbuscular mycorrhizal fungi to protect the fungal hyphae from drying out or leaking nutrients, similar to the way bark protects a tree. Glomalin accounts for about 15–20% of the organic carbon in undisturbed soils and is the glue that holds together stable soil aggregates. Glomalin is extremely tough and resistant to microbial decay and thought to contribute to longer-term carbon storage (10–50 years).

**Labile organic carbon:** Labile organic carbon refers to the organic carbon in the soil that is rapidly turned over, so the carbon stays in the soil for less than five years. This is in contrast to more stable pools of organic carbon that can have a longer hang time (10–50 years) in the soil.

**Lignified roots:** Lignin is the organic substance that binds the cells, fibres, and vessels that constitute wood and the lignified elements of plants, such as straw. The lignin content of roots can reduce the decomposition rate of the root, thereby potentially contributing to more stable soil organic matter.

**Livestock Price Insurance (LPI):** [A risk-management tool](#) allowing producers to purchase price protection on cattle and hogs in the form of an insurance policy.

**Mineral associated organic matter:** Mineral associated organic matter refers to soil organic matter compounds that are directly bound to soil minerals. Sites where enzymes would normally attach to the organic matter are unavailable because they are bound to the soil minerals. This reduces the breakdown of the soil organic matter. However, this protection is not permanent because soil compounds are constantly in flux.

**Scope Three emissions:** Scope One emissions are produced by sources that are owned or controlled by a given organization. Scope Two emissions are generated indirectly from the consumption of purchased energy (electricity, heating, and cooling). Scope Three emissions are indirect and include, for example, the emissions produced in the supply chain of the goods and services purchased to create another



## Appendix

product or deliver a service. Scope Three emissions are the result of activities from assets that are not owned or controlled by an organization, but that the organization indirectly impacts in its value chain.

**Soil microbial respiration:** Soil microbial respiration is the release of carbon dioxide (CO<sub>2</sub>) from the soil. This CO<sub>2</sub> comes from numerous sources, including plant root respiration and microbial decomposition of organic matter as microbes consume organic matter to obtain energy for their growth and function. Soil microbial respiration is a common soil health metric used to measure biological activity in the soil as an indicator of healthy soil function and nutrient cycling.

**Soil organic carbon (SOC):** Refers to levels of carbon in agricultural soils. Assessing how organic carbon levels in Canadian agricultural soils are changing over time gives a useful picture of soil health and an estimate of how much carbon dioxide has been removed from the atmosphere by plants and stored, or sequestered, as soil organic carbon in agricultural soils.

**Soil organic matter (SOM):** All organic materials found in soil that are part of or have been part of living organisms. The Forum explored the benefits of soil organic matter, such as improved soil quality through the retention of water and nutrients, which can lead to greater agricultural productivity. Approximately 58% of soil organic matter is soil organic carbon.

## Gradients of agreement

“Gradients of Agreement” is an approach to consensus-based decision making developed by Sam Kaner, Duane Berger, and the staff of Community At Work. This technique is sometimes referred to as “Fist to Five,” where participants use a 1 to 5 point scale to express support for a decision.

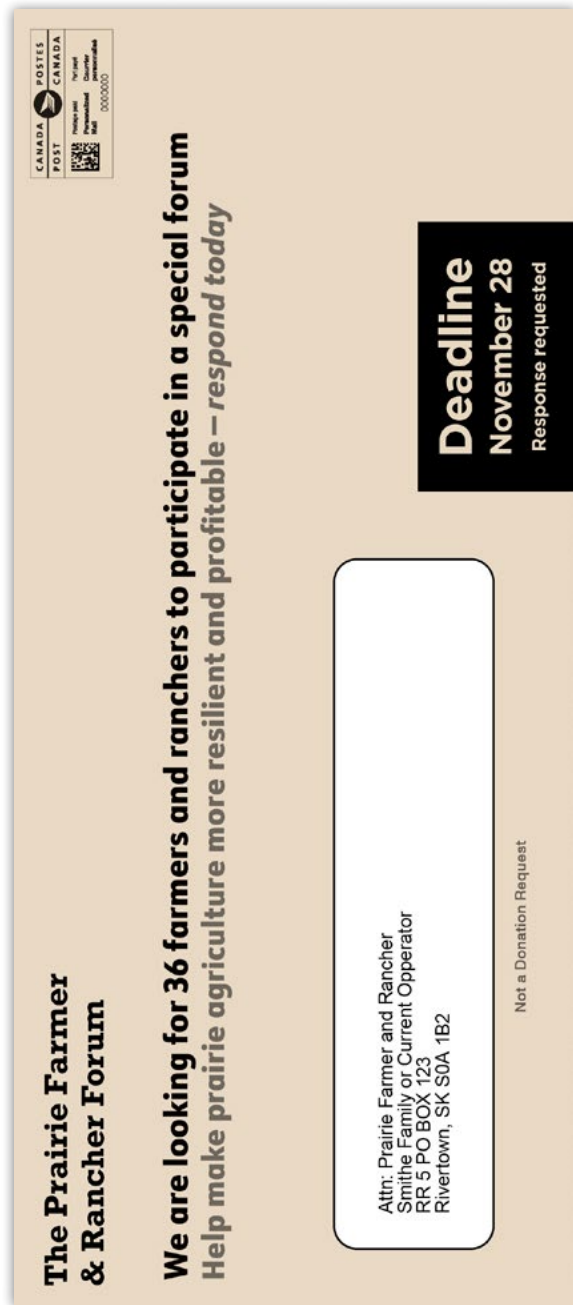
- **A fist** means “I vote NO,” or in consensus it means “I object and will block consensus” (usually on moral grounds).
- **1 finger** means “I’ll just barely go along,” or “I don’t like this but it’s not quite a no,” or “I think there is a lot more work to do on this proposal.” In consensus, this indicates standing aside, or not being in agreement but not blocking the consensus.
- **2 fingers** means “I don’t much like this but I’ll go along.”
- **3 fingers** means “I’m in the middle somewhere. I like some of it, but not all.”
- **4 fingers** means “This is fine.”
- **5 fingers** means “I like this a lot, I think it’s the best possible decision.”

The general approach is to introduce the issue, suggest a decision, and suggest to what degree everyone needs to be on the same page—not all decisions require everyone at a 4 or 5. Early on, people are asked to indicate with the number of fingers how they feel about the decision. They use the number of fingers as a way to ask what it would take to help this person reach one number higher, for example. People get to share their concerns, seek more information, and learn more about each other’s perspectives.

The Prairie Farmer & Rancher Forum used the gradients of agreement method extensively throughout the Forum process. Forum members agreed that all recommendations required all members to vote four or five, except where only one or two Forum members were in disagreement. In that case, the recommendation would be adopted with a note in the report indicating dissenting views.

## Forum mail-out invitation package

### Invitation envelope



### Message from the Chair

## A message from the Chair of the Forum

Let's forge a path towards a sustainable and thriving agricultural sector.

Your expertise and insights are invaluable, and your involvement in the Forum will make all the difference.

**This Forum is a rare and unique opportunity for prairie farmers and ranchers.**

We understand this invitation is unexpected and that some may be skeptical.

Call the toll-free line, ask us questions, and talk to us to understand more about what we're trying to accomplish.

Mary Smillie  
Assembly Chair  
Bladworth, Saskatchewan

**1-833-537-1758**

## Invitation letter

### Prairie Farmer & Rancher Forum

a project of



FARMERS FOR CLIMATE SOLUTIONS

Dear Farmer / Rancher:

Prairie farmers and ranchers face challenges from the market, weather, public perception, and the potential impact of new regulation—all putting our operations and legacies under added pressure.

*Our customers, including most large food and grain companies, are now asking for sustainably produced products. We face more questions about how we grow crops and raise livestock. We need to respond to these changes in ways that work with our operations, the legacies we have built, and the future we want.*

As stewards of the land, the best solutions will come from us. It is time for prairie farmers and ranchers to come together and chart our path forward in order to improve resilience and remain profitable.

We are looking for a group of farmers and ranchers to share their expertise and identify opportunities for our sector to plan for and thrive in the changes that lie ahead, specifically those related to climate change. This important group will represent farm and ranch operations like yours, who are concerned about the future of our sector.

**We invite a representative from your farm or ranch to participate as a Forum member.**

Starting in January, the Prairie Farmer & Rancher Forum will bring together 36 randomly selected farmers and ranchers from Alberta, Saskatchewan, and Manitoba. The Forum will represent diverse views and experiences from different areas on the Prairies.

Forum members will meet in person over three occasions. They will share their experiences, learn together, discuss challenges and successes, and explore opportunities to position prairie agriculture for a more competitive future.

By participating, you will contribute your voice and ideas alongside other Forum members to develop recommendations that can be presented to those you think need to hear them—the community that shapes our industry here on the Prairies, across Canada, and in markets around the world.

You do not need to hold specific views on the climate or environment to participate. **All you need to be is a farmer or rancher from Alberta, Saskatchewan, or Manitoba.**

We have a legacy to protect and a future to build. We hope that you will register today.

Sincerely,



**Gordon Bacon**  
Forum Co-Lead  
CEO Emeritus  
Pulse Canada  
Winnipeg, MB



**Ian McCreary**  
Forum Co-Lead  
Owner Operator  
McCreary Land & Livestock Ltd.  
Bladworth, SK

**Farmers for Climate Solutions (FCS)** is a farmer-led, non-partisan, national coalition aiming to advance policy and programming that supports farmers and ranchers in the face of climate change.

Turn Page ➡

Curious? Have questions? Want to register? Call us at 1-833-537-1758

**Deadline**  
**November 28**  
Response required

# Frequently Asked Questions

## Why did I receive this invitation?

Your farm or ranch is one of 10,000 across Alberta, Saskatchewan, and Manitoba that were randomly selected to receive this invitation to join the Prairie Farmer & Rancher Forum.

## Do I need an invitation to register for the Forum?

No. If you did not receive an invitation but are interested in participating, you can register online at [www.prairie-ag-forum.ca](http://www.prairie-ag-forum.ca) or over the phone by calling 1-833-537-1758. You must be a farmer or a rancher (aged 18 and over) in Alberta, Saskatchewan, and Manitoba.

## Is there a cost to participate? Is this a donation request?

No and no. You will never be asked for a donation or to pay for anything related to the work of the Forum. We will work to support you in effectively contributing to the process.

## What is the Prairie Farmer & Rancher Forum?

The Prairie Farmer & Rancher Forum is based on the Citizens' Assembly model. Citizens' Assemblies have been used across Canada and Europe to provide detailed guidance to decision-makers concerning complex public issues. The goal of an assembly is to create a well-supported opportunity for representative members of the public or particular community, in this case farmers and ranchers, to participate in an important public decision or planning process related to a specific issue. These panels are typically made up of 30 to 50 randomly selected participants who together represent a range of perspectives, as well as the demographic profile of a specific jurisdiction.

Participation is voluntary. Working with a team of facilitators, assembly members learn about an important public issue. They hear from experts and stakeholders as they work towards a consensus concerning their priorities. Assemblies issue detailed public reports that explain their work and make recommendations to address the issue at hand. In Canada, panels have been used to aid in city planning processes, health care policy development, and other important public processes.

## Why am I being invited to participate in the Prairie Farmer & Rancher Forum?

Farmers for Climate Solutions (FCS) believes that policy, programming, and industry solutions to climate change will come from farmers and ranchers like us. FCS puts the experiences and advice of farmers and ranchers at the heart of its work and continually adapts based on their perspectives. We are asking you to apply to participate in the Forum because farmers and ranchers like you have

lots to contribute when it comes to positioning prairie agriculture for a more competitive future.

## Who is Farmers for Climate Solutions?

Farmers for Climate Solutions (FCS) advances policy and programming that supports farmers and ranchers to reduce emissions and build resilience in the face of climate change. Since its launch in 2020, FCS has been a leader in developing farmer-led recommendations to accelerate climate action in Canadian agriculture. In 2022, FCS launched FaRM, a national field program providing a free, farmer-to-farmer learning hub with resources to help farmers and ranchers integrate beneficial management practices into their operations.

## How do I become a member of the Forum?

You must respond to this invitation letter no later than Tuesday, November 28, 2023, by calling 1-833-537-1758, by registering securely online at [www.prairie-ag-forum.ca](http://www.prairie-ag-forum.ca), or by mailing the enclosed response card. On Friday, December 1, 2023, a draw will be conducted to randomly select the members of the Forum. Our team will contact you if you are selected to confirm that you are available and able to participate in all three meetings.

## I am worried my mailed registration will not arrive by November 28, what should I do?

Please call us at 1-833-537-1758 and a Forum staff will help you register over the phone. You can also register online at [www.prairie-ag-forum.ca](http://www.prairie-ag-forum.ca).

## Are my travel, lodging, and other costs covered?

Yes. Reasonable travel costs will be covered. Parking, accommodation, and meals during Forum meetings will be provided.

## How will members of the Forum be selected?

Members will be chosen by randomly selecting individuals from the group of people who register for this Forum. This process is called a Civic Lottery. The Lottery is designed to ensure that the selection process is fair. It also ensures that the final 36 members broadly represent the population of farmers and ranchers in Alberta, Saskatchewan, and Manitoba by balancing gender, age, geography, and other criteria against known population information.

## What would I do as a member of the Forum?

As a Forum member, you will hear from farmers and ranchers and other leading experts on challenges, successes, and opportunities related to climate change in our sector. These presentations will include many opportunities for you to learn and ask questions. The Forum

Turn Page ➡

will then work through a series of small group discussions, first exploring and evaluating, and then gradually agreeing on recommendations that can be presented to those you think need to hear them.

Many Forum member contributions will revolve around learning together and thinking about possible options or ideas through facilitated discussion. The Forum is a great opportunity to meet people and learn something new in a friendly atmosphere.

**Can I still participate if I'm not an expert or familiar with the topic or the process?**

Yes. We do not expect you to have any specialized knowledge or experience. You don't need to be an expert, know much about climate change in agriculture, or agree with the ideas advanced by Farmers for Climate Solutions. Your experience as someone involved in producing crops or raising livestock on the Prairies is what matters most. We will help you learn what you need to know to ensure you and the other Forum members can make informed recommendations.

**I'm concerned about a possible barrier to participating. What should I do?**

We are committed to assisting any eligible participants who are selected to join the Forum. If you would like to register for the Forum but are concerned about potential barriers to participating, please call us at 1-833-537-1758 and a team member will be happy to discuss how we can support your participation.

**Who is eligible to serve on the Forum?**

You must live on the Prairies, be aged 18 and over, and at least half of your household income must be derived from your agricultural operations. Only one person per household can participate in the Forum.

Elected representatives, employees of Farmers for Climate Solutions, and individuals employed by sector organizations are not eligible to serve on the Forum. If you

have eligibility questions, please call our toll-free line at 1-833-537-1758.

**When and where will the Forum meetings take place?**

The Forum meetings will occur in person over three (3), two-and-a-half (2½) day meetings in different prairie locations. To register, you must be able to attend in person all the meetings listed below.

1. **Meeting #1 - Manitoba - Elkhorn Resort**  
Wednesday, January 3 at 1:00 p.m.  
to Friday, January 5 at 4:00 p.m.
2. **Meeting #2 - Saskatchewan - Elk Ridge Resort**  
Wednesday, February 14 at 1:00 p.m.  
to Friday, February 16 at 4:00 p.m.
3. **Meeting #3 - Alberta - Kananaskis Mountain Lodge**  
Wednesday, March 13 at 1:00 p.m.  
to Friday, March 15 at 4:00 p.m.

**I am unsure if I can attend each session of the Forum, can I still apply?**

Unfortunately, no. All Forum members must attend each session of the process. We can provide a formal letter of reference about your participation in the Forum.

**Will I get paid to serve on the Forum?**

No. We are asking you to volunteer your time as an act of public service to represent farmers and ranchers from across the Prairies. The Forum team will try to remove all other barriers to participation—all reasonable costs, including travel, lodging, and meals, will be covered.

**Why is the invitation letter signed by Ian McCreary and Gordon Bacon?**

Ian and Gordon believe that this is the right time for engaging in discussions with prairie farmers and ranchers to chart our path forward in order to improve resilience and remain profitable.

## How to register for the Prairie Farmer & Rancher Forum

There are three quick and easy ways you can register:

- Call 1-833-537-1758 to register by phone, or ask questions about the selection process
- Complete the enclosed purple Invitation Response Card and mail it back using the enclosed envelope, or
- Register securely online at [www.prairie-ag-forum.ca](http://www.prairie-ag-forum.ca)

Please register by Tuesday, November 28, 2023. If you are selected for the Forum, you will receive an email and a phone call on the evening of Friday, December 1, 2023.

Before registering, please ensure you are available on the dates listed above. We ask that you hold all the meeting dates listed in this invitation until Friday, December 8, 2023, when all selected members are confirmed.

*If you cannot participate, please encourage another member of your household 18 years of age or older to register.*

Return envelope

Return Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Response Required by  
November 28, 2023**

Register by mailing the response card enclosed or by going to:  
[www.prairie-ag-forum.ca](http://www.prairie-ag-forum.ca)

If you think your response card will not arrive in time or if you have low internet connectivity please call us at 1-833-537-1758

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PRAIRIE FARMER AND RANCHER FORUM  
PO BOX 59  
BLADWORTH SK S0G 0J0

Response card front

YES, I would like to participate as a member of the Prairie Farmer & Rancher Forum

No, I do not wish to participate, but I am interested in the process and outcomes – please keep me in the loop

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Gender:  Female  Male  \_\_\_\_\_ Age:  Under 35  35 to 54  55 and over

Primary Phone Number: \_\_\_\_\_ Secondary Phone Number: \_\_\_\_\_

Email: \_\_\_\_\_

Attn: Prairie Farmer and Rancher  
Smithe Family or Current Operator  
RR 5 PO BOX 123

**Deadline  
November 28  
Response required**

If you have any questions please call 1-833-537-1758

Please turn over

Response card back

**Candidate Response Card**

1) I describe myself as (choose any that apply):

Indigenous, First Nations, Métis, or Inuit

Racialized  Black  White

2) We want the Forum to represent diverse views. Please indicate which statement you most agree with. I believe climate change is:

occurring, and it is caused mostly by human activities

occurring, and it is caused mostly by the natural environment

occurring, and it is caused by human activities and the natural environment

may or may not be occurring – we need more evidence

not occurring

3) I am a farmer or rancher and at least half of my household income comes from my agricultural operations:  Yes  No

4) I belong to the following general production sectors (choose any that apply):

Oilseed and grain farming  Cattle ranching and farming

Other: \_\_\_\_\_

5) I understand that if selected and agree to participate, I will attend all of the following sessions:  Yes  No

#1 Manitoba - Elkhorn Resort - Wed., Jan., 3 to Fri., Jan., 5

#2 Saskatchewan - Elk Ridge Resort - Wed., Feb., 14 to Fri., Feb., 16

#3 Alberta - Kananaskis Mountain Lodge - Wed., Mar., 13 to Fri., Mar., 15

Personal information collected on this form, online, or over the phone, will be used to recruit and select participants for the Prairie Farmer & Rancher Forum on behalf of Farmers for Climate Solutions or to keep in touch based on your indicated preferences. Go to [www.prairie-ag-forum.ca](http://www.prairie-ag-forum.ca) for our data collection policy, or call 1-833-537-1758.

**Deadline  
November 28  
Response required**