

March 31, 2023

Agriculture and Agri-Food Canada
Email: aafc.sas-sad.aac@agr.gc.ca

Re: Manitoba Canola Growers response to Sustainable Agriculture Strategy Discussion Questions

Dear Agriculture and Agri-Food Canada,

Thank you for the opportunity to provide a response to Agriculture and Agri-Food Canada's Sustainable Agriculture Strategy (SAS) Discussion Document. The Manitoba Canola Growers Association (MCGA) represents roughly 7500 canola farmers in Manitoba, and we are committed to the long-term sustainable success of farms and farmers in the province.

The MCGA board of directors have reviewed the document and offer the responses below.

Issue 1: What do we want to achieve through a Sustainable Agriculture Strategy?

Discussion Questions for Issue #1

1. Which of the proposed goals for a Sustainable Agriculture Strategy do you agree with most? What would you add or change?

Goals 1, 4 and 5 we agree with most. Resiliency, productivity and adaptation as referenced in Goal 1 all support the need of farmers to continue to be successful in producing food and other agricultural products for the long term. As implied in the goal, resiliency for farmers must include sustained profitability through growing productive capacity and adapting to more effective production methods.

A major gap in the successful buy-in of farmers to the goals that have been set at all levels of government and industry has been the lack of engagement and communication that Goal 4 would accomplish with a more comprehensive and integrated approach. As experts in managing complex natural systems, farmers immediately recognize how setting goals in one area (such as reducing fertilizer emissions) can not be done in isolation and without considering the impact on other aspects of an agricultural system, nor without consideration of the alternatives that are both available and affordable to farmers, as well as a realistic measure of the time it takes to research, trial, improve, and achieve mainstream adoption of any new production method or technology. This expertise from



farmers must be better leveraged early and throughout the development of any farm-level strategy to assure outcomes that are realistic, holistic and achievable.

As addressed in Goal 5, the current lack of real-world data ahead of setting targets has contributed to unrealistic or unspecified targets and solutions, making it imperative that data gaps be addressed in order to have a chance at successful and sustainable change.

All of these goals will require broad investment and commitment from government over the long term, with particular consideration for whether farmers can continue to implement solutions effectively and affordably over the long term in the absence of incentives. Investment must be multi-departmental and incremental beyond the existing investment in agriculture. Eroding the existing investment in agriculture that is still required to address diversification of food production, market traits, production efficiency and changing agronomics in the face of climate change and regulatory pressure on crop input products will undermine the ability of farmers to continue to meet the primary goals of production agriculture, limiting their ability to also meet the goals of enhanced environmental sustainability.

An important and overlooked barrier in the success of any change in agricultural production that is not captured among these goals is the understanding and acceptance of that change by consumers and trade markets. One of the goals of this strategy must include a strategic and significant effort to communicate the value and impact of introducing new technology and production methods in agriculture to achieving the environmental, social, and economic goals that society seeks from the agricultural sector.

It will also be important to the buy-in from farmers to differentiate between solutions that meet both society's and farmers' sustainability goals, and solutions that benefit society's goals without benefitting the farmer, or at a cost to farmers. For practices that have no impact on profitability or have an additional cost to farmers for the benefit of environment or society, there must be compensation to farmers for providing these ecological goods and services and participation of farmers must be optional through a voluntary program.

2. What should a Sustainable Agriculture Strategy aim to achieve in the agriculture sector in terms of:

a. Climate change mitigation

This strategy needs to achieve real world and regionalized data to support a baseline, a quantitative measure of what target is realistically achievable and at what cost (particularly to productivity and profitability), and ongoing metrics to track progress against the goal. It should also seek to achieve:

- Production, economic and risk resilience for farmers;



- Broad public acceptance and regulatory enabling of all agricultural technologies that are scientifically and empirically proven to support improvements in environmental, economic or social sustainability, especially biotechnology in seed breeding and developing plant resilience;
- A reasonable balance between realistically ambitious targets and practical, feasible application of solutions, recognizing that agriculture is an essential industry that must continue to meet increasing production targets;
- Long term investment in research that focuses on the means of adapting to changing conditions, such as new seed varieties with heat resistance or deeper roots and the agronomic research to support how farmers would produce these new seed varieties;
- Ensuring farmers have all the possible tools at their disposal to manage crop production under less predictable and more volatile conditions.

b. Adaptation

Farmer economics must be a top line consideration for every solution. Barriers to adoption of existing technology should be identified first when seeking to increase adoption of new and especially existing technologies. Reasonable time must be afforded to allow for research, trials, improvement, and realistic adoption curves for any new production method or technology. Data on baseline adoption rates, realistically achievable adoption targets, and ongoing measure of progress toward the goal is critical.

c. Biodiversity

Farmers recognize the value of biodiversity and have seen improvements in biodiversity over time on the farm. There must be a distinction between the responsibilities of the farmer and the interests and goals of society. If farmers are being asked to change how they operate their farm business, they must have the data to support that business decision, and compensation through a voluntary program if the actions are providing ecological goods and services in the interest of achieving society's goals at the expense of the farm's goals, or when there is no benefit to the farm.

There must also be a balance between healthy biodiversity that supports a strong ecosystem (such as pollinators) and the ability to effectively manage crop pests that can be devastating to crop yield and quality (insect pests, wildlife damage). Farmers are trying to sustain life with production agriculture – it is an essential industry that needs to be protected alongside achieving sustainability goals like biodiversity.

d. Water

Water is an essential part of agriculture. Water management needs a holistic approach with bigger picture strategies that include the needs of agricultural production, such as a balance between the



needs of farmers to be able to manage water removal from flooded land with the importance of maintaining or improving water availability and quality. Farmers are finding it nearly impossible to navigate the current rules due to red tape. Departments and jurisdictions from federal to provincial to municipal need better collaboration to create efficient and harmonized systems, perhaps looking to models in other regions or countries that are proven effective (for example, North Dakota farmers are paid to hold back water in their fields during the spring melt to reduce the load on the drainage system). A strategy must be data-based using real world data, particularly where it impacts farming.

e. Soil health

Western Canada has done well in improving soil health through reduced tillage, reduced summer fallow, and increased carbon sequestration compared to other regions and countries. It is a complex system that supports soil health, and any decision related to changes in agricultural production must also consider the impact on soil health. For example, the gains in soil health in western Canada are directly correlated to the ready availability of affordable glyphosate products, and the loss of this critical tool would risk all that has been gained. Further, nutrient balance is critical for crop health, soil health and water quality, and changing the source of fertilizer could dramatically impact the nutrient balance (e.g. manure can be unbalanced and require either overfertilization of one nutrient to meet the requirements of another, or supplements to balance a nutrient shortfall.) Solutions to improve soil health must be realistic in a real world farm setting and leverage existing data as well as generating new data for setting achievable goals and monitoring progress toward goals. Ideally, the data would be generated in Canada under a standardized test system, as currently much of the soil testing data is generated in the U.S. and standardized testing and reporting units are not in place.

3. How can a Sustainable Agriculture Strategy support an environmentally, socially, and economically sustainable agriculture sector?

Farmers are natural adopters of good practices. If a practice exists that they have not generally adopted, there is a reason it is not a fit in their operation. Understanding how and why farmers make decisions to change how they farm is foundational to developing a strategy that can be accepted and broadly implemented at the farm level. Joy Agnew, Associate Vice President of Applied Research at Olds College, presented a study from the United Farmers of Alberta Co-operative on the factors that influence farmers to change their practices and found that the top two factors were the cost to implement and whether there was local use of the practice. Providing incentives that manage the cost to implement the practice in the short and long term, and demonstrating to farmers at a local level that the practice works, would be two key aspects of a successful strategy.

Other items identified as part of a successful strategy include:

- Addressing rural infrastructure needs such as high-speed internet access and mobile connectivity, plus improved access to predictive weather tools



- Recognizing regional diversity in factors affecting agricultural production
- Defining what type of farmers are included in the strategy. Does it include hobby farmers as well as those who make their living off of farming?
- Clear support for farmer mental health as part of a social sustainability strategy. Unpredictability of growing conditions and markets, eroding profit margins, limited access to skilled labour, uncertain succession plans, changing and inconsistent regulations, constantly evolving technology, and changing access to effective and affordable inputs are placing a tremendous strain on farmers, farm families and farm workers.
- Clear focus on the goals for the strategy. What is the scope of the strategy? It may become unmanageable to include every possible definition of agriculture from forestry to hunting to commercial agriculture. If the focus is on producers, then the strategy must focus on the scope that is within what farmers do.
- Recognition that some practices do not work regionally. For example, farmers in Western Canada have not adopted cover crops because they do not work. Targeting specific practices like cover crops would need to address why and how they would work.

In addition, we can not overstate that setting targets must be done based on real world data establishing a baseline and confirming what is realistically achieved in what timeline and at what cost. Having a baseline measure of whether a farm is sustainable, and how it may improve sustainability, would help farmers make business decisions that support sustainability. Targets must be realistic and relevant to the capabilities and function of the sector to inspire both investment of money, time or effort and action to achieve progress toward those targets. The strategy must include effective communications, training, and tools for all key stakeholders in achieving those targets, including farmers.

Issue 2: Approaches to overcome barriers and advance environmental outcomes in the sector

Discussion Questions for Issue #2

1. **What success stories can you share about approaches to improve environment and climate outcomes in the sector? In what way have those approaches impacted yields or costs?**

The 4R Nutrient Stewardship program and adoption of zero till in western Canada and two examples of success. Both programs have supported improved or more consistent yields with a minimal impact on cost, or cost savings in the case of increased nutrient efficiency or reduced fuel costs from tillage passes.



2. What suggestions do you have for additional approaches that could be part of a Sustainable Agriculture Strategy to:

a. Support environment and climate outcomes in the agriculture sector in general?

Suggestions included:

- A score card for sustainable practices to give farmers a benchmark to identify good practices and practices that are “future practices or improvements” or unable to be adopted. Ideally it would be regionally specific but aligned across provinces, and perhaps leveraging an existing program like Environmental Farm Plans;
- Communications strategy for public acceptance of the technologies that will be required to meet environment and climate outcomes.

b. Support the agriculture sector in reaching net-zero by 2050?

Suggestions included:

- Is net zero able to be accomplished in agriculture while maintaining food security? Targets should be aspirational. Achieving net zero can't be at the expense of the ability to produce food sustainably and securely. Will need major advancements in technology to achieve this.
- Need data to determine what is realistic for agriculture, such as Joy Agnew's data. What can we do that will actually move the needle? Have realistic goals, recognize credits in a holistic system of measurement.
- Need consistency in how net zero is measured, such as measurement of full root depth to reflect actual depths as part of a measure of carbon sequestration.
- Investment in extension training and communications that not only provide farmers with expertise and guidance but create a channel of communication from farmers back to government for monitoring progress, generating new methods or ideas, and continuous improvement.

3. Given the pace of change needed, in which areas could regulatory approaches or changes to existing ones be used to accelerate environment and climate action?

Use incentives, not regulation. We can't regulate to the level of the EU where farming is only profitable if the government pays farmers. That said, deregulation in the fertilizer industry has affected farmers' confidence in the performance of more specialized or “enhanced” fertilizer products as there are no standards by which to validate these products. Reintroducing standards for specialized fertilizer products would save farmers time and money by reducing the need for farmers verify the effectiveness of these products through on-farm trials.



4. **What type of research should be prioritized to advance environment and climate outcomes in the sector?**

- Crop traits that will allow plants to be productive and resilient and profitable under unpredictable conditions: more N fixing crops, RNAi technology, cost efficient green fertilizer, local in-field trials, validation and demos, verification of effectiveness of new products – especially in fertilizer where de-regulation has resulted in uncertainty of fertilizer effectiveness.
- Research that improves yield while reducing the need for or total cost of inputs. Ideally provides a step-change increase in yield at a comparable cost to farmers. Less reliance on fertilizer and pesticides would be a welcome cost saving for farmers and support the buy-in needed to adopt new methods. Cost of seed needs to be a factor as this is a top concern for farmers.
- Research supporting data generation in real world or real time conditions.

Issue 3: Targets and data on environmental performance

Discussion Questions for Issue #3

1. What kind of data are most important for measuring environmental and climate outcomes in the sector?

Need more infrastructure and expertise across Canada to support data gathering and analysis. Real world or real time data that considers all the factors contributing to the measure of environmental and climate outcomes is critical. Agricultural systems may be too complex for mathematical models to be accurate; need actual data to back up the models. Both output metrics (like GHG emissions) and input metrics (like carbon sequestration) need to be considered when measuring baseline and improvements, as well as setting targets.

2. What suggestions do you have for improving how environmental data is collected and shared in the sector?

There needs to be investment in the people, expertise, infrastructure, institutions, and systems that are already or could have the capacity to gather and analyze data.

3. What qualitative or quantitative targets do you feel would be realistic, ambitious, and measurable to generate the most action in the following:

- Reducing GHG emissions or storing carbon**
- Making the sector more resilient**
- Supporting biodiversity**
- Supporting water quality and availability**
- Improving soil health**



Supporting data is required to support benchmarks and establish targets.

Final Questions:

Do you have any other ideas, comments, feedback, or suggestions to share on a Sustainable Agriculture Strategy?

While no strategy will achieve 100% adoption, any strategy must be accessible and realistic for all farms. It will need to be regional by province and production area, and flexible by farm type. It must be financially accessible to all farmers. It would be unacceptable for the strategy to promote practices that reduce production, for example, green manure means that one out of three years a farmer is not producing food on that land, risking land expansion, reduced productivity, and reduced profitability. Where possible and practical, protection of class 1 and 2 farmland from urban expansion or other development uses outside of farming should be part of this strategy to ensure prime farmland remains available for farm production, particularly if farmers are encouraged to remove marginalized land from farm production.

Canada has unique ability to produce more food than we need to support global food security. This strategy must support Canada's needs and goals, not be forced to fit into the goals established in other areas of the world. It needs to engage the expertise of farmers early and consistently, addressing their needs and barriers to adoption in order to maximize the opportunity for success.

We would be happy to further discuss these recommendations at your convenience and appreciate this opportunity to provide feedback as the path for a strategy is being set.

Sincerely,



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