PULSE CANADA

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April 14, 2023

Agriculture and Agri-Food Canada
1341 Baseline Road
Ottawa, ON
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SENT VIA EMAIL TO: aafc.sas-sad.aac@agr.gc.ca

Re: *Sustainable Agriculture Strategy: Discussion Document*

To whom it may concern,

Pulse Canada has been actively engaged in the proposed Sustainable Agriculture Strategy (SAS) since consultations were launched in December 2022, including participation in the Advisory Committee. We are pleased to comment on the discussion document.

Pulse Canada is the national industry association that represents growers, processors, and traders of pulse crops (peas, lentils, dry beans, chickpeas and faba beans) in Canada. The Canadian pulse industry has been steadily growing for decades, with Canada now being the 2nd largest producer and largest exporter of pulses in the world. Pulse growers and pulse production are a fundamental component of sustainable agriculture systems in Canada, as the nitrogen fixation capacity of pulses provides a key environmental benefit to Canadian cropping systems. Adding pulses to crop rotations is a proven method to immediately reduce greenhouse gas emissions from Canadian cropping systems while being agronomically beneficial without the need to test and adopt new technologies. In fact, the 3.5 million hectares of pulse crops grown in 2021 reduced greenhouse gas emissions from Canadian agriculture by approximately 3.6 million tonnes (CO_2 eq).

LEVERAGING THE VALUE CHAIN TO ENABLE SUSTAINABLE GROWTH

Although the SAS is focused on developing policy and programs within the farm gate, it is also clear that achieving the goals of the SAS will require a broader, more inclusive view of Canadian agri-food value chains. Enabling market-based solutions will allow Canadian farmers and the agriculture sector to achieve more, while ensuring that approaches work for the entire value chain. In addition, the market will provide more financial resources to accelerate a shift to sustainable practices, resources which are limited within government. Pulse Canada, other agricultural organizations, and Canadian agricultural companies in Canada are well positioned to provide direction and guidance to AAFC on how farm-level solutions can be augmented and supported within value chain approaches.

The SAS must be developed in a way that works for the Canadian agri-food value chain, as the policies, goals, outcomes, targets, and metrics that are developed from this strategy will affect and be utilized by the entire agricultural sector. AAFC represents both agriculture and agri-food, and the SAS needs to reflect the needs of the whole sector.

CANADIAN PULSES AS A VALUE CHAIN SOLUTION

The Canadian pulse sector provides a prime example of a farm-based sustainability solution which is being leveraged by the value chain. There is increasing knowledge in the marketplace that pulses can provide substantial greenhouse gas benefits in food systems. The market is increasingly interested in

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how pulses can help achieve corporate sustainability goals, while also providing nutritional, health and functional benefits to both plant-based and animal-based food systems. Recent findings reveal that pulses incorporated into 6-year crop rotations across several provinces reduce greenhouse gas emissions by up to 21%. Peas incorporated into Western Canadian swine diets have been shown to reduce the carbon footprint of Canadian pork by 18%, while pasta reformulated with 30% lentil flour has a 30% lower carbon footprint. The responsible growth of the Canadian pulse industry will further decrease greenhouse gas emissions from Canadian agriculture, specifically from fertilizer. A scenario for the Canadian pulse industry of 40% growth by 2030 would further decrease greenhouse gas emissions by 1.4 million tonnes (CO2 eq).

In recognition of the need to capitalize on the sustainability advantages of pulses and Canadian production systems, Pulse Canada has been focused on developing a Sustainability Strategy for the Canadian pulse industry. This work demonstrates how the goal of an increasingly sustainable and profitable agriculture sector in Canada can be achieved from a holistic, value chain perspective. This strategy work has identified several opportunities for the Canadian pulse sector, one of which being the interest of the food industry in reducing greenhouse gases through carbon insetting protocols.

The interest from the food industry in achieving targets around net-zero and the Science-Based Targets Initiative (SBTi) is a perfect example of how the market can be leveraged to help achieve sustainability goals for the Canadian agriculture sector. In particular, the food industry is exploring the utilization of carbon insetting to allow for the accounting of greenhouse gas reductions in their supply chains. On-farm practices like the adoption of 4R fertilizer management, and the use of pulses in crop rotations are good examples which will deliver carbon benefits to these supply chains.

POSITIONING THE SUSTAINABILITY OF CANADIAN AGRICULTURE

Canadian agriculture has made great progress on environmental sustainability and has a great story to tell. Canadian farmers have positioned themselves as environmental leaders through the adoption of technologies and practices which have increased efficiency and decreased environmental impact.

However, there is a gap in Canada’s capacity to tell our environmental story to Canadian consumers and the global marketplace. The work of the National Index for Agri-Food Performance has provided a great picture of Canada’s capacity and has identified key gaps in metrics and data for measuring environmental performance in the Canadian agricultural sector. As the marketplace and the Canadian public increases its interest in sustainable agriculture, it is imperative that the Government of Canada increase its investment into metric development and data. Canada already has strong researchers for the development of key metrics like greenhouse gas emissions and biodiversity, however these researchers lack the resources to improve their modelling in a timely fashion. Increased investment in sustainability metrics for agriculture will be key to tracking the past and future progress of Canadian agriculture. In addition, investments into sustainability metric development in Canada will improve the capacity to incorporate regional differences into modelling, which is important for a country as large as Canada.

The capacity to capture data that is reflective of farming practices is an important gap to fill to measure and track progress for agri-environmental performance in Canada. Innovative solutions around data acquisition need to be created as progress has been stymied by barriers related to historical data. For example, the need to capture historical data for practices related to greenhouse gas emissions, like fertilizer management, back to 2005 or 1990 requires an innovative and open-minded approach.

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THE SAS MUST WORK FOR CANADIAN FARMERS

Given the progress that has been made by Canadian farmers, it will be important to develop a strategy that highlights this progress and does not appear to penalize farmers for adopting practices early. The perception that progress has been ignored exists amongst farmers that adopted no-till and other practices decades ago. A key component of positioning Canada in the marketplace will be to recognize and showcase progress, which will also help to identify and focus on further improvements.

A topic that has continuously been brought up during the SAS consultations is the need for the SAS to reflect the regional nature of Canadian agriculture. One-size-fits-all approaches cannot be applied to Canadian agriculture, as the diversity of climates, soils and farm production systems varies widely across Canada, and can vary widely from farm to farm. In addition to regional differences in environment, the scale of farming varies across Canada, and policies and approaches need to match the scale of farming that represent the majority of production in a region. In other words, developing programs suited for farms of 1,000 acres will not be impactful in a region dominated by farms of 5,000-10,000 acres. Key to the success of the SAS will be flexible policies which will enable farmers across Canada to adopt practices that suit their local circumstances. Policies also need to reflect the reality of rural life in Canada, which limits the adoption of certain practices which will be easier to implement in urban settings, and where different solutions need to be uncovered for farming and rural areas.

Another key component of creating an SAS that works for Canadian farmers will be to establish realistic goals and targets. Goals and targets need to be science-based and must reflect Canadian agriculture from an environmental, social, and economic perspective. Regarding greenhouse gas emissions, the SAS needs to reflect the fact that nitrous oxide and methane emissions are inherent in agricultural production systems. These emissions can be reduced, and efficiencies can be gained, but these emissions cannot be eliminated. Setting goals and targets that are realistic also requires time frames that reflect the realities of Canadian agriculture. Targets that have been set in the past, including the Fertilizer Emissions Reduction Target, included a timeframe which was unrealistic for the agriculture sector to achieve. The reality is that Canadian agriculture has continuously made progress, that this progress can be accelerated with proper investments and policies, but that change in practice involves significant investments in capital and time by individual producers. Goals and targets established as part of the SAS need to reflect that reality. The SAS must also consider that aggressive environmental targets can only be achieved with the participation of most producers, and enabling market-based solutions will be necessary.

USING RESEARCH AND TECHNOLOGY TO ENABLE THE SAS

The discussion document for the SAS fails to recognize the role that research, and technology adoption has had and will continue to have in improving the environmental performance of Canadian agriculture. Research into plant breeding, agronomy and technology have enabled Canadian farmers to adopt practices, technologies and new crop varieties which have significantly improved yields while also improving environmental performance. Achieving environmental targets for Canadian agriculture will only be achieved with increased private and public investment into new practices, technologies, and genetic improvements. Improving yields while minimizing environmental impacts will require as many tools as possible for growers and researchers.

Plant breeding is the cornerstone of crop production in Canada, and research is required to ensure that varieties are produced with adequate disease and pest resistance and are adapted to local conditions. An example in the pulse industry is the need to develop pulse varieties that are resistant to the root disease *Aphanomyces euteiches*. This soil-borne root disease can be devastating to pulse production, as the disease can survive in the soil for long periods of time, and it has the effect of severely impacting yields

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when established. New pulse varieties with resistance to this pest are needed to sustainably produce peas and lentils in some regions, and environmental targets cannot be achieved without solutions to these fundamental problems. Plant breeding can also serve to expand the suitable range of different crops in Canada, enabling further diversification of crop rotations. In the case of pulses, crops like faba bean, mung bean, adzuki bean and lupin all have the potential for growth across a broader range of production area with further investment in plant breeding.

The Canadian pulse industry has developed a National Pulse Research Strategy to guide pulse research investments in Canada. This strategy outlines strategic outcomes, research priorities and enabling activities. With pulses being key for the sustainability of Canadian cropping systems, this research strategy also lays out the types of investments needed to help grow the production of pulses in Canada, while improving the environmental performance of pulse production itself.

AAFC'S ROLE WITHIN THE SAS

The focus of an AAFC strategy on sustainable agriculture should be on how AAFC can enable the achievement of sectoral goals and outcomes around sustainability, rather than imposing goals themselves. There is enough market and public pressure for the sector to respond to. What the sector needs are the resources, programs, and expertise within AAFC and the Government of Canada to enable the sector to improve the sustainability of Canadian agriculture. The reality is that the financial resources of the Canadian government are limited in the sense that there is no US style "Farm Bill" which can be leveraged to effect change on the agricultural landscape. For that reason, the focus of the SAS should be on leveraging value-chain solutions to effect change in Canada.

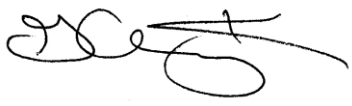
In addition, the SAS needs to reflect the reality that Canada is a major producer of food for the world, and the productivity and profitability of the sector are paramount to the success of an environmental strategy. In AAFC's own 2023-23 Departmental Plan, the Sustainable Canadian Agricultural Partnership is meant to focus AAFC's efforts to see agriculture and agri-food exports reach $95 billion and increase sector revenues to $250 billion by 2028. Canada has a responsibility to the world to continue producing food that is nutritious, accessible, and environmentally responsible, and the SAS must reflect these concerns.

NEXT STEPS

Thank-you for the opportunity to share the ideas and concerns of Canada's pulse industry. Canadian pulse growers, processors and exporters are important contributors to the economy. We remain committed to working with the government to ensure our industry remains competitive while lowering our environmental footprint. We look forward to continuing to contribute to the formation of this strategy.

Please do not hesitate to contact us if you require additional information.

Sincerely,



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PULSE INDUSTRY RECOMMENDATIONS FOR THE SUSTAINABLE AGRICULTURE STRATEGY (SAS)

1. The SAS must be developed in a way that works for the Canadian agri-food value chain, as the policies that are developed from this strategy will affect and be utilized by the entire agricultural sector.
2. The Government of Canada must increase its investment into metric development and data.
3. The SAS must include flexible policies to enable farmers across Canada to adopt practices that suit their local circumstances.
4. Goals and targets need to be science-based and must reflect the realities of Canadian agriculture from an environmental, social, and economic perspective.
5. Increased private and public investment into new practices, technologies, and genetic improvements is needed to achieve environmental targets for Canadian agriculture.
6. AAFC must focus on how it can enable the achievement of sectoral goals and outcomes around sustainability, rather than imposing goals themselves.
7. The SAS must reflect the reality that Canada is a major producer of food for the world, and the productivity and profitability of the sector are paramount to the success of an environmental strategy.