



# Written Submission for Agriculture and Agri-Food Canada's Sustainable Agriculture Strategy Consultation

*Saskatchewan Crop Commissions*

March 31, 2023





## Introduction

The Saskatchewan Crop Commissions (SaskCrops) comprised of SaskBarley, SaskCanola, SaskFlax, SaskOats, Saskatchewan Pulse Growers, and Sask Wheat welcomes the opportunity to provide feedback to Agriculture and Agri-Food Canada (AAFC) on the Sustainable Agriculture Strategy (SAS) discussion document. SaskCrops has appreciated the opportunities provided by government to date to consult on the development of the SAS.

Our commissions were individually established to invest farmer dollars in varietal development, agronomic research, and market development. SaskCrops was formed in 2021 as a means of further bringing our sector together and working together towards the shared common goal of ensuring Saskatchewan farmers remain competitive in the global market, profitable at a on-farm level, and have their voices heard by government. Together, we support and advocate for science-based policy to support the competitiveness of Saskatchewan farmers on which profitability and sustainability depend.

Our organizations represent over 24,000 grain, oilseed, and pulse growers in Saskatchewan – almost all of Saskatchewan’s annual crop producers and almost all of the annually cropped land in Saskatchewan. Saskatchewan farmers typically rotate their annually cropped land among a wide variety of crops, usually including a mix of grains, oilseeds and pulse acres in their annual cropping plans as a whole farm response to economic, agronomic, and environmental conditions. This fundamental characteristic of Saskatchewan annual crop production supports the unified approach that SaskCrops takes in this submission.

Agriculture is a critically important segment of Canada’s economy, and Saskatchewan plays a vital role in Canada’s agriculture sector, accounting for 43 percent of Canada’s cropland.<sup>1</sup> Saskatchewan contributes roughly 40% of Canada’s annual total field crop production. From 2018 to 2022, Saskatchewan annually produced, on average, 39% of Canada’s barley, 54% of Canada’s canola, 76% of Canada’s flaxseed, 49% of Canada’s oats, 87% of Canada’s chickpeas, 89% of Canada’s lentils, 51% of Canada’s peas, 80% of Canada’s durum wheat, and 41% of Canada’s non-durum wheat.<sup>2</sup> To put Saskatchewan’s agricultural scale and productivity in perspective, Saskatchewan, alone, produces the equivalent of the entire domestic Canadian demand for many of these crops and, for most of these cases, much more than that. Saskatchewan, by itself, has the productive capacity to provide domestic food security in the products of these crops which provide dietary staples for Canadians. In reality, domestic consumption sources products from across Canada. Therefore, Saskatchewan has to export a large percentage of the crops

<sup>1</sup> Statistics Canada, 2022. Canadian Agriculture at a Glance. Saskatchewan continues to live up to the title of breadbasket of Canada <https://www150.statcan.gc.ca/n1/pub/96-325-x/2021001/article/00008-eng.html>

<sup>2</sup> Statistics Canada. Table 32-10-0359-01. Estimated areas, yield, production, average farm price and total farm value of principal field crops, in metric and imperial units.



represented by SaskCrops and in 2021 Saskatchewan supplied 21% of the total value of Canadian agri-food exports, largely from these crops. Saskatchewan is the world's leading exporter of durum wheat, peas, oats, lentils, flaxseed, and canola.<sup>3</sup> Saskatchewan's non-durum wheat competes as a major source of high-quality product favoured by international customers and Saskatchewan barley is a major component of domestic and export food, malt and livestock products.

Contributing to the sustainability of this vast amount of production, Saskatchewan annual crop producers have been and remain at the forefront of innovation in agricultural production globally. They have long been early adopters of technologies that have greatly lowered Saskatchewan GHG emissions from crop production compared to other regions of Canada. Saskatchewan annual crop producers as a group are unique across Canada in their low emission intensity coupled with high agricultural intensity and have made and continue to make meaningful contributions that will help Canada meet environmental goals and increase the resiliency of Canadian agriculture. Important examples include the massive cumulative positive soil organic carbon change across the agricultural area of Saskatchewan from 1990-2020 (Figure 1, SAS Discussion Document) largely attributable to the adoption of continuous cropping, crop rotation, and reduced tillage. Also of note is an 11% or about 5.2-million-acre reduction in total land in annual crop and summerfallow acres (resulting from a 21% increase in annually cropped acres and a 94% decrease in summerfallow acres) from 1991 to 2021.<sup>4</sup> Over the same period, Saskatchewan's total annual crop production has increased by 47%, attributable to the adoption of rotations including a wide variety of grains, oilseeds, pulse and specialty crops, improved crop varieties, and improved technology and agronomic practices.<sup>5</sup>

The statistics highlighted above are provided as vivid examples of the importance of Saskatchewan's annual crop production, its contribution to Canadian domestic food security, to environmental sustainability and to valuable exports that are key drivers of the Canadian economy. The value to the national economy and, concomitantly, the value and unique development of the Saskatchewan primary annual crop production sector that enables this production have historically been recognized and endorsed by the Government of Canada and, by extension, the people of Canada. This recognized importance suggests that the perspectives of Saskatchewan annual crop producers and the

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<sup>3</sup> Government of Saskatchewan, 2021. Saskatchewan Agriculture Exports 2020.

<sup>4</sup> Statistics Canada. Table: 32-10-0153-01. Land Use, Census of Agriculture.

<sup>5</sup> Statistics Canada. Table 32-10-0359-01. Estimated areas, yield, production, average farm price and total farm value of principal field crops, in metric and imperial units. (Note that the 47% increase in total annual crop production is the increase in the aggregate amount of barley, canola, flax, oats, chickpeas, lentils, peas, durum, and non-durum wheat from the 1991-95 period to 2017-21.)



organizations that represent the majority of them should be afforded a strong voice and genuine and informed consideration in the development of the SAS.

### **Conflicting Government Policies and Targets**

AAFC has articulated an overarching goal of reducing absolute GHG emissions and ultimately reaching net-zero emissions by 2050, while finding ways to increase yields and economic growth. More specific concurrent and possibly conflicting targeted time frames for large increases in the value of national agricultural production and exports (which will necessarily include increases in Saskatchewan production and exports) as well as a targeted 30 percent reduction in fertilizer emissions have been put forward. Given the short timeframes for achieving these targets (2028 and 2030 respectively), this presents significant challenges for farmers. Importantly, there are only eight growing seasons left until 2030. This short time frame will make it challenging for farmers to evaluate and implement Best Management Practices (BMPs) for their farm and possibly make large capital investments in equipment and technology. To add to the challenge, the Federal Government has additionally emphasized, including in the current SAS discussion document, that in an increasingly turbulent world, Canadian farmers must play a crucial role in ensuring food security throughout the world. It seems improbable that these goals can be achieved simultaneously. AAFC has not provided a path forward to do so that is coherent, rigorous, predictable, and realistic within the timeframes outlined. This path forwards clearly needs to include attention to the public goods aspects of environmental policy and targets, and consideration of who should bear the associated costs.

The inherent conflicts in the above policies create deep uncertainty for Saskatchewan's annual crop producers. If both production and environmental policy targets are to be achieved, the contribution of Saskatchewan annual crop producers as major producers of sustainably produced, high quality products that feed both domestic and export markets will be fundamental. Saskatchewan producers are committed to sustainably producing high quality and needed products for consumption in Canada and globally, but they must be competitive globally in order to continue doing so. Saskatchewan annual crop producers operate in a world where the prices they receive for their production are largely determined globally. As such, if policies, targets, and associated timeframes impose costs that do not contribute to improved efficiency or increased output at the individual farm level, producers will have to absorb the costs at the risk of becoming globally uncompetitive and unprofitable. Saskatchewan annual crop producers must be profitable to be sustainable. They must be globally competitive to be profitable.

### **Further Comments**

SaskCrops provides comments below on the proposed guiding principles and the three provided discussion issues outlined in the SAS discussion document.





## SAS Guiding Principles

SaskCrops supports several of the proposed guiding principles for the development of the SAS including that the strategy must be farmer-focused, that it must recognize regional diversity in agriculture, and that there is no blanket solution to addressing environmental issues. There must be a coordinated effort between federal and provincial governments and key stakeholders, most importantly farmers. The strategy must be evidence-based, guided by systematic science supported by reliable and valid methodologies and informed by sufficient verifiable data. This will require adequate public funding of scientific research. Canada as a whole and farmers in particular cannot afford policy and target development and implementation that gets ahead of the science. The strategy also must be predictable, fully transparent and accountable both to farmers and the public. Placing the public good at the centre of all SAS decision making, as is proposed, must include adequate consideration of the public goods that will be created by this strategy, what the costs of achieving these goods are, who receives the benefits, and who should bear the costs. In addition, interaction between farmers and the public around environmental issues and the SAS cannot be only one way with the onus placed on farmers to gain public trust. The government must help the public to understand the science that supports annual crop production as practiced in Canada, including vigorous support in public communication and through funding of the scientific activities of Health Canada's PMRA and CFIA.

The proposed guiding principle of *additionality* is neither science-based nor farmer-focused. Saskatchewan farmers have led Canadian and global grain producers in the development of sustainable production practices, especially in contributions toward carbon neutrality. Saskatchewan farmers' adoption of practices that sequester carbon is often used as a positive example of what the government, through the SAS, hopes to achieve in terms of soil health. However, because of the imposition of the principle of additionality and high rates of adoption, future ongoing contributions to carbon sequestration from continuous cropping, crop rotation, and reduced tillage are not likely to be meaningfully recognized through the SAS despite the commitment in the SAS to support and complement existing initiatives. Instead, other sequestration/emission reduction practices such as planting of shelterbelts and cover crops are being emphasized – practices that have limited practicality or economic benefits in association with annual crop production as practiced at the scale at which it is carried out in Saskatchewan, especially in the semi-arid areas that comprise a large part of the province.

## Discussion Issues

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

The proposed vision for the SAS includes “driving forward from a solid foundation of regional strengths and diversity in order to rise to the climate change challenge.” It is imperative that the strategy recognize regional differences and regional successes which in some cases can be further built on. This,







however, cannot be done without addressing data gaps and improving measurement capacity regarding environmental performance and benchmarking. The fifth proposed goal of the SAS, “Canada has addressed data gaps and improved capacity to measure, report on, and track the environmental performance of the agriculture and agri-food sector” dictates the feasibility and future success of the other four proposed goals and should be placed at the top of the list to emphasize its importance or otherwise note its priority.

SaskCrops is pleased to note the inclusion of the importance of competitiveness and economic considerations for producers within the SAS discussion paper. While the priorities of the Guelph Statement, which inform the SCAP and the proposed SAS, are increasingly focused on environmental protection and sustainable production, it is important that the economic and social pillars of sustainability also receive the attention they require in order to develop a truly sustainable agriculture strategy. Annual crop producers in Saskatchewan have little to no control over the global price they receive for their output. SaskCrops is concerned with policies that may place an unfair burden on our export-oriented producers, in pursuit of undefined national environmental objectives. Such policies may increase farmers’ costs with no ability to offset these costs through increased prices as there is no strong evidence or experience supporting the suggestion that there will be premiums from global customers for sustainably produced food. Given that many of the crops produced in Saskatchewan are traded in conditions of fierce competition around the world, market premiums for improved environmental performance in production will be difficult, if not impossible, to achieve in the majority of cases. At best, such assertions or evidence can be expected to help to maintain customers or capture new sales at competitive global prices.

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

Research and innovation continue to be important to support the necessary changes required to ensure producers will be profitable, sustainable, and resilient into the future. The SAS discussion document notes that “public and private investment in research and science in the agriculture sector will be critical to unlock solutions for advancing climate and environment outcomes in the sector.” Research into new technologies and production practices for use on-farm is crucial to ensuring the sustainability and resiliency of Canadian field crop production. It is vital that the Government of Canada continue to adequately fund research activities through the AgriScience Cluster and Project Programs.

Research conducted at the University of Saskatchewan shows that over the past 20-30 years, for every \$1 that western Canadian farmers have invested into research and variety development, they have





received \$20-\$60 in benefits.<sup>6</sup> Any reductions in the funding of research activities leaves considerable returns on investment forgone.

Saskatchewan annual crop producers invest millions of dollars each year through our organizations into research. SaskCrops views variety development and agronomic research as primary ways to overcome barriers and increase agricultural sustainability and resiliency. We believe, and history shows, breeding activities that develop trait technology and innovation 'ingrained' in the seed will help to meet sustainability goals by providing farmers with higher yielding varieties with improved nutrient use efficiency, reduced herbicides needed, and better ability to withstand abiotic and biotic stressors.

Agronomic research and extension can also help to identify BMPs that result in improved environmental performance, more effective input use and more efficient carbon capture, furthering farmers' contribution to Canada's climate change and sustainability goals. However, there are many variables at the regional and individual farm level that will impact what solutions work for an individual farmer. It is critical that any recommended or incentivized practices are both economical and environmentally feasible for farmers. Wide-scale testing at the regional and farm level is needed to assist in the adoption process.

While funding through the Agricultural Climate Solutions (ACS) Living Labs and On Farm Climate Action Fund (OFCAF) streams targets testing and adoption of new practices and technologies for producers, there are currently no crop production-specific Living Labs in operation in Saskatchewan. Saskatchewan annual crop producers' confidence in practices or technologies that are targeted and tested elsewhere will be reduced. Additionally, the \$200 million OFCAF stream which supports the costs of adopting new practices or technologies is inadequate to service wide-scale uptake given the vast scale of prairie, particularly Saskatchewan, crop production, the large size of many individual prairie farms, and maximum funding caps per farm.

Gene-editing is noted as an important tool for producers to meet the ambitious objectives of the SAS addressing production challenges and environmental targets. The Canadian agriculture sector is still awaiting the Canadian Food Inspection Agency's (CFIA) guidance for Plants with Novel Traits (PNT). The delay in the publication of guidance constrains producers' ability to access important technologies needed to address food security challenges in an environmentally and economically sustainable way. Many of our competitive international counterparts have enjoyed access to this technology for several years now, creating challenges for Canada to remain competitive in the global market for grains.

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<sup>6</sup> Dr. Richard Gray, 2023. *The Future Directions for Public Agricultural Research and Breeding in Canada*. SSGA Industry meeting on public plant breeding and Seed Regulatory Modernization.



Continued investment into research and innovation requires a regulatory framework that is transparent and predictable to reduce barriers and risk to investments into research. It is important that such regulatory agencies as the PMRA make decisions based on the best available real-life data, backed by science. Beyond a regulatory framework that promotes investment into research and development, time is required for ideas to evolve from basic discovery into research, and on to maturity for implementation at scale. This presents a significant challenge given the short time frame to 2030.

Overall, to match the ambitions of the SAS, more funding and research is needed on the environmental impact of targeted practices as well as the economic and agronomic impacts. Farmers need accessible, unbiased research to assist them to trial and evaluate practices and technologies to understand what will work for their farm. Such research, which is crucial to the adoption of new practices and technologies and ultimately the success of the SAS, also requires adequate time for testing. This certainly applies to the short-time frame to the 2030 fertilizer emissions reduction target and possibly even the ambitious goal of net-zero by 2050.

### ***Discussion Issue 3: Targets and data on environmental performance***

It is difficult to improve upon metrics if they have not been explicitly defined or are not currently being measured. Several of the proposed goals for the SAS are dependent on addressing existing data gaps and measurement capacity. As the strategy notes, it is essential that timely and complete data is collected to understand the environmental impacts of current production practices. The SAS must prioritize data collection and measurement at the field level to better assess its own progress and help to inform future targets, strategies, and policies.

Tracking farm-level production practices and modelling emissions is certainly no small feat; however, it is vital, both to inform the SAS objectives and to better understand the impact that specific BMPs have on mitigating emissions and sustaining the environment. SaskCrops is willing to work with governments and researchers to ensure necessary and adequate research is undertaken to reliably measure and collect data at the farm-level regarding emissions and environmental performance. However, this will require new and significant government funding.

SaskCrops believes there is an opportunity to provide better data on detailed fertilizer use and practices at the farm-level through the strengthening of existing surveys, such as Fertilizer Canada's Fertilizer Use Survey and Statistics Canada's Farm Management Survey. Such data collection and modelling should not create additional reporting burdens for individual farmers. Surveying a representative sample of Canadian farmers, reflective of diverse regional production conditions and levels, on farm management practices should not create any more of a burden for respondents than current government or industry survey collection does. There is also the possibility to leverage complementary and existing data such as the Census of Agriculture and provincial crop insurances. Compensation for participation in the survey





should also be considered as farmers already complete an enormous amount of surveys and paperwork and their time is valuable. Regardless of the source or sources of data, maintaining the security of it throughout its use is imperative to build trust with producers who provide the data. They should be consulted thoroughly with a fully transparent data use and sharing system in place.

While we recognize there are challenges in developing internationally acceptable measures, the uniqueness of Canadian crop production needs to be accounted for in Canada's metrics. Similar to the need to recognize that there is no one-size fits all solution to reducing emissions across Canada, Canada must advocate for flexibility internationally for the acceptance of the accuracy of its measurement of Canadian emissions and environmental performance when other regions are not using the same production practices or technologies. This has been a problem for international comparisons of GHG emissions of individual crops as, unlike Canada, most countries do not include GHG reductions from carbon sequestered through zero-till practices. Therefore, in direct comparisons of Canadian emissions to other countries, the impact of zero-till on carbon sequestration and overall GHG emissions is left out. As Saskatchewan farmers have adopted production practices such as zero-till and continuous cropping that have significantly reduced their carbon footprint, this needs to be considered in international GHG emissions comparisons to present an accurate reflection of GHG emissions for Canadian crop production and not put us at a disadvantage.

Lastly, while targets can be useful tools/mechanisms to track progress on improved environmental performance and sustainability in the agriculture sector, they should not be implemented solely on the basis that other countries and jurisdictions have them in place as highlighted in Annex D of the SAS discussion document. Any proposed agricultural environmental policies and targets must be grounded and supported by science and verifiable data as well as be realistic and measurable in Canada.

### **Conclusion**

SaskCrops welcomes the opportunity to provide feedback on AAFC's Sustainable Agriculture Strategy. SaskCrops appreciates AAFC's recognition that the SAS is not one-size fits all and must recognize regional diversity across Canada as there are many variables at the regional and individual farm levels that will impact what solutions work for each farmer. It is crucial that any targeted or incentivized practices are economically, operationally, and environmentally feasible for farmers.

We cannot afford to get ahead of the science. Calling for an increase in reliable food production and, at the same time, developing environmental objectives and targets without the support of accurate measurement techniques and protocols that yield sound, adequate, and representative data, will limit Canada's ability to meet the challenges of increasing exports and sustainably feeding the world.

Saskatchewan farmers have been, and remain, at the forefront of innovation in global agriculture. Through innovations, they have been making meaningful emissions reductions on-farm for decades,





while consistently growing more food, largely through per acre yield increases. It is vital for Canada that Saskatchewan agricultural producers remain competitive and profitable, producing food for a growing world population and, at the same time, ensuring a healthy sustainable environment for future generations. Saskatchewan producers must be profitable to be sustainable. They must be globally competitive to be profitable.

We look forward to future consultations and discussion with AAFC on the Sustainable Agriculture Strategy.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jill McDonald".

Jill McDonald  
Executive Director, SaskBarley

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Shawna Mathieson  
Executive Director, SaskOats

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Tracy Broughton  
Executive Director, SaskCanola

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Carl Potts  
Executive Director, Saskatchewan Pulse Growers

A handwritten signature in blue ink, appearing to read "Blair Goldade".

Blair Goldade  
Executive Director, Sask Wheat

