

Is Canadian food sustainably-produced?

Ontario Federation of Agriculture: Policy Advisory Council

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One of the most pressing issues facing humanity:

producing food more sustainably – and showing it



With urgency comes **opportunity**

Leadership is being **redefined**

"...Canada is recognized as **a world leader** in sustainable agriculture and agri-food production..."

MENU 💙

Canada.ca > Agriculture and Agri-Food Canada

Canada's federal, provincial and territorial Ministers of Agriculture set the direction for the next agricultural framework

From: Agriculture and Agri-Food Canada

News release

Today, Canada's federal, provincial, and territorial (FPT) Ministers of Agriculture wrapped up their annual conference by issuing the "<u>Guelph Statement</u>". Their shared vision for the next agricultural policy framework will position our agri-food producers, processors and others in the sector for continued success as world leaders in sustainable agriculture, and will enable a globally competitive sector. Ministers also acknowledged and recognized the hard work of everyone involved in maintaining the strong food supply chain for Canadians during COVID-19.

Ministers agreed on the sustainable agriculture approach needed to help shape the next policy framework, which includes environmental, social and economic considerations in all priority areas. Ministers agreed on the following five priority areas for the next framework: (1) climate change and the environment; (2) science, research and innovation; (3) market development and trade; (4) building sector capacity and growth; and (5) resiliency and public trust.

The vision agreed upon by Ministers for the next agricultural policy framework charts an ambitious path for the sector. It states that "Canada is recognized as a world leader in sustainable agriculture and agri-food production and drives forward to 2028 from a solid foundation of regional strengths and diversity, as well as the strong leadership of the Provinces and Territories, in order to rise to the climate change challenge, to expand new markets and trade while meeting the expectations of consumers, and to feed Canadians and a growing global population."

Ministers also agreed to continue to improve the suite of business risk management (BRM) programs to make them timely, equitable, and easy to understand, while supporting the competitiveness and sustainability of the sector.

Guelph Statement, November 2021

So... how do we know if Canadian agriculture & food is **sustainable**?

Are we **doing enough** for a fast-changing food world?

How can measuring sustainability be the **opportunity** to drive-up **value?**

| Redefining Canadian leadership







An unprecedented coalition A new benchmarking tool A concrete plan to use it

| 135 partners



National Index on Agri-Food Performance

Agriculture and Agri-Food Canada, Environment and Climate Change Canada, and Statistics Canada are ex-officio partners. Contributors include cash and in-kind support.

Big global shifts \rightarrow New response

Positioning & market access

Canada – show global leadership: agri-food sector's first sustainability index

U.S. – producer-led coalition: become the first carbon negative sector in the economy

> Australia – Brand Australia's agricultural sustainability & stewardship for exports



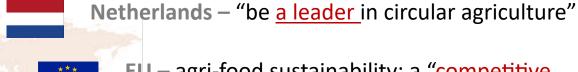




Ireland – sustainability dashboard "pioneered" world's first national food & drink sustainability program

Norway – aquaculture industry: be "the world's most

environmentally friendly production of healthy food"



EU – agri-food sustainability: a "competitive advantage". Green deal diplomacy for global trade

> **New Zealand** – agricultural sustainability dashboard to verify its "clean-green assertions" - being "the most trusted"



Target-setting: sustainable sourcing

McDonald's

- 100% responsibly source priority ingredients
- Regenerative farming: soil, inputs, biodiversity
- Net-zero emissions: 2050

General Mills

- Sustainably source 10 priority ingredients
- 2030: **1 million acres** of regenerative farmland
- Net-zero emissions: 2050



Meeting targets: collaboration

Companies need to commit their supply chains

89% of food & beverage companies' total GHG emissions (scope 3) found in company supply chains

Producers need to engage the food system

Getting to net-zero 2050 requires working w/ ENGOs, researchers & companies to address system impacts

National Index on Agri-Food Performance Supply Chain: Changing the Chain, CDP Supply Chain Report 2019/20. For sector examples: Fertilizer Canada to join the Grain Growers of Canada on 'Road to 2050', Press Release, Grain Growers of Canada, Nov. 2022; Interim Progress Report, 2020, Canadian Roundtable on Sustainable Beef; DFC Targets Net-Zero Greenhouse Gas Emissions by 2050, Article, Dairy Farmers of Canada, Feb. 2022

| Being benchmarked









ECONOMIST IMPACT

Food Sustainability Index



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"Agriculture sustainability":	"Sustainable agriculture":	"Sustainable development report":	
Indicators: Sustainable Nitrogen Management Index + sustainable pesticide use	Indicators: water & land use, fertilizer, pesticides, soil, GHGs, biodiversity, fisheries, animal care, etc.	Indicators: based on 17 UN Sustainable Development Goals (SDGs)	
40 indicators in total beyond agri-food	2 other indicators: Food loss & waste, Nutritional challenges	Agriculture-related sub-indicators: Sustainable Nitrogen Index, cereal yield, exports of pesticides, emissions, biodiversity, etc.	
Overall Canada: 49 th / 180 countries	Canada: 3 rd / 78 countries	Canada: 29 th / 163 countries	

National Index on Agri-Food Performance

Canada's overall rankings can include other indicators, not shown. Methodologies have not been assessed 2022 Environmental Performance Index, Yale Center for Environmental Law & Policy; Food Sustainability Index 2021, Economist Impact, The Economist Newspaper Ltd.; Sustainable Development Report 2022, Cambridge University Press

| Climate risk = credit risk

REGULATORS:

Disclose climate-related risks

BANKS:

Commit to Net-Zero

BORROWERS:

Assess bank portfolios





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Canada's financial & securities regulators align with global Task Force on Climate-related Financial Disclosures

Align portfolios to UN Net-Zero Banking Alliance goals; new ESG metrics

Assessments extend to supply chains "scope 3" emissions

National Index on Agri-Food Performance

Climate Risk Management, Draft Guideline, Office of the Superintendent of Financial Institutions (OSFI), May 2022; Focus: Banks in Canada Committed to a Net-Zero Economy by 2050, Canadian Bankers Association, November 2021; *Canadian securities regulators publish guidance on ESG-related investment fund disclosure,* Canadian Securities Administrators (CSA), January 2021

| Mandatory ESG disclosures

ESG: Environmental, social, governance assessments

G-7: Global baseline for corporate disclosures

CSSB: New standards, 2024

(Canadian Sustainability Standards Board)

Beyond climate: Standards accounting for water, biodiversity & labour



Benchmarking sustainability is redefining *leadership*



National Index on Agri-Food Performance

ESG: environment, social, and governance factors; CSSB: Canadian Sustainability Standards Board. TCFD: Task Force on Climate-Related Financial Disclosures; TNFD: Task Force on Nature-Related Financial Disclosures | Requires a new response



Whoever defines sustainability "wins"

Measure or be The bar is only rising measured

| Canada's 1st agri-food sustainability index



| Portraying sustainability credentials

What it is:

- Consolidated national picture: production to retail*
- ✓ Systems view of sustainability (4 blocks)
- ✓ Pilot: 20 indicators & 130 metrics
- Outcomes based or highest quality evidence (metrics)
- ✓ A **framework to align** entire sector
- Inspire reporting: leadership & needed progress (national / global goals)
- ✓ Basis to agree on data gaps





What it is not:

- ✓ Not prescriptive
- ✓ Not collecting data directly from producers or companies
- ✓ Not comparative
- Not scoring producers, companies or Canada
- Not measuring consumer diets (matters of social/health policy)*
- Not (yet) providing complete disaggregated views – by province, sub-sector, etc.

^{*} Index proposes to measure largely what is directly related to and in the control of production (all forms of agriculture and fisheries/aquaculture), processing and food retailing, and bioproducts sectors

| National Index on Agri-Food Performance pilot

INDICATORS

METRICS

1. Climate change &	1. Emissions			
GHGs	2. Sequestration/loss			
	3. Mitigation			
2. Soil health	1. Soil cover			
	2. Soil erosion			
	3. Soil organic carbon		INDICATORS	METRICS
3. Water stewardship	1. Water quality		14. National economic	1. GDP
	2. Water use		contribution	2. Employment
4. Biodiversity & agrobiodiversity	 State of biodiversity & habitat change (interim for 3 & 4) 		15. Financial vibrancy	 Trade balance Financial performance
	2. Conversion of farmland to urbanization		& resiliency	2. Investment
	 Composite view: state of biodiversity & habitat change 	National Index		3. Labour 4. Infrastructure
	4. Disaggregated views: state of biodiversity	on Agri-Food		5. Supply chain resiliency
	& habitat change	Performance	16. Innovation	1. R&D
5. Crop inputs use / management	1. Responsible pest control use (pesticides)			2. Regulatory approvals
	2. Responsible nutrient use (fertilizer)	the second se		3. Innovation adoption
6. Food loss & waste	1. Reduce		17. Sustainable	1. Market-based sustainable capital /
7 Deckering 9 wests	2. Repurpose		finance	investment
7. Packaging & waste	1. Reduce / recycle 2. Reuse	ENVIRONMENT		 Government / NGO-sourced climate solutions funding
	2. neuse			solutions funding
a Mar Mar Mar Mar Mar Mar	"Also the	Canada's agri-food		
		sustainability		
		indicators		
INDICATORS	METRICS	FOOD SOCIETAL	INDICATORS	METRICS
8. Safe food		FUUD SUCIEIAL		
	1. Overall safe food supply	INTEGRITY WELL-BEING	18. Decent work for	1. Workplace mental health
	 Overall safe food supply Recalls & safety alerts 		18. Decent work for people	 Workplace mental health Workplace safety
	 Recalls & safety alerts Compliance with maximum limits for 			
	 Recalls & safety alerts Compliance with maximum limits for contaminants 			2. Workplace safety
9. Health: Nutrition	 Recalls & safety alerts Compliance with maximum limits for contaminants Provision of nutrition information 			 Workplace safety Inclusive & progressive workplace
9. Health: Nutrition	 Recalls & safety alerts Compliance with maximum limits for contaminants Provision of nutrition information Mandatory fortification 		people 19. Food security	 Workplace safety Inclusive & progressive workplace Attractiveness of sector as a place to work
9. Health: Nutrition information	 Recalls & safety alerts Compliance with maximum limits for contaminants Provision of nutrition information Mandatory fortification Promoting Indigenous country foods 		people	 Workplace safety Inclusive & progressive workplace Attractiveness of sector as a place to work Monitoring food insecurity: food affordability
9. Health: Nutrition	 Recalls & safety alerts Compliance with maximum limits for contaminants Provision of nutrition information Mandatory fortification 		people 19. Food security	 Workplace safety Inclusive & progressive workplace Attractiveness of sector as a place to work Monitoring food insecurity: food affordability Increasing access to nutritious foods
 9. Health: Nutrition information 10. Health: Antimicrobial 	 Recalls & safety alerts Compliance with maximum limits for contaminants Provision of nutrition information Mandatory fortification Promoting Indigenous country foods 		people 19. Food security	 Workplace safety Inclusive & progressive workplace Attractiveness of sector as a place to work Monitoring food insecurity: food affordability Increasing access to nutritious foods
 9. Health: Nutrition information 10. Health: Antimicrobial stewardship 11. Health: Zoonotic 	 Recalls & safety alerts Compliance with maximum limits for contaminants Provision of nutrition information Mandatory fortification Promoting Indigenous country foods Antimicrobial use & resistance Risk surveillance: rate of animal disease 	INTEGRITY	people 19. Food security 20. Animal care	 Workplace safety Inclusive & progressive workplace Attractiveness of sector as a place to work Monitoring food insecurity: food affordability Increasing access to nutritious foods
 9. Health: Nutrition information 10. Health: Antimicrobial stewardship 11. Health: Zoonotic disease mitigation 12. Traceability implementation 13. Transparency & 	 Recalls & safety alerts Compliance with maximum limits for contaminants Provision of nutrition information Mandatory fortification Promoting Indigenous country foods Antimicrobial use & resistance Risk surveillance: rate of animal disease outbreaks 		people 19. Food security 20. Animal care	 Workplace safety Inclusive & progressive workplace Attractiveness of sector as a place to work Monitoring food insecurity: food affordability Increasing access to nutritious foods
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Part 2 Final Report, May 2023

National Index on Agri-Food Performance | Hallmarks of a sustainable sector...?

It's about the *metrics*

| Balanced reporting

130 metrics & global context



7 interpretive papers on results

National Index on Agri-Food Performance

| Hallmarks of a sustainable for food sector

The *metrics* tell one part of the story



ational Index n Agri-Food erformance	Paper 4 of 7 May 2023 agrifoedindex.ca
3.4 Sustainable food	Focus on food security
n safe, rul-titious foods and produced by people to retrics that measure the social sustainability of foo astainable food, inoluding a raiationship with tool	where A sublahabile food system ensures equilable access anted faily. The Index includes 10 indicators and many more d. As well, helpersus habitors have anisotre considentiation for south boot systems. The locate of the todos where the food (cancels (15 % of Canadians are moderately or soverily food dise.
elon). "Food security" is much broader, including	y" is a measure of a household's consortic access (addressed the stability of the entire load aystem, the state of supply and his index – as presented by all 25 indicators – reports on this.
herefore, must take a limited approach to measuri equity and affordability, but data is only available	ell-Being Indicators waterd web-bayout aproximate and tood policy. The Index, or phin safer laces. The Index links any matching on food for four. The most event data available in 2020 and therefore satisfy pror the recent impact of COVMD and other economic
vulnerable. • Food insecurity is higher for children the • Senters (53+) have the lowest food inse • According to Statistics Canada, lood prices I	d remote communities, and incigenous peoples are particularly n adults.
Interpreting the results	
ee considered moderatery food insecure if they co bod insecurity is when households report disrupte	as to tood affordability in the previous 12 months. Households repromes the quality or quality of tood they consums. See as a adding patterns or reduced food inclus. Figure 1 provides an reads, with the lightest tables in children younger than 16.
cope of the Index, including social, education, get	of the drivers of food insecurity, many of which fail outside the graphic and economic factors. As a mast, the index largely revised food policy, future versions of the index will need to and reporting.

Sustainable production Focus Source and the second sec	lational Index	PART 3 Seven Papers on Index Results Paper 5 of 7 May 2023
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	requires an understanding of a complex system. The spans serveral index relicances such as sai health, a biodiversity impacts. Given the global and national is to food production systems, this paper addresses to and land conversion. Results above a complex, cham	e there of exclusion production takes a holistic approach and winnis values, water systems (on tams and for ferbrace), and significance of biochemity to the well-being of the planet and isolatersity with seven relevant metrics with a focus on habitate.
	atention of formland.	
end in channel and inclusion. We channel and inclusion and a set of the set	This overview focuses on one element of sustainable capacity idefined below) and land conversion. Agricu	production, biodiversity, with a focus on metrics related to habiter iture and Agri-Food Canada (AAFC) compiles an index on wildlife
	 a small but incremental decline. A score of 100 potentially occurring land species. Familiand use for annual corps is on the rise, v loss of termiand to arbanization and other non- Within familiand to cover, which promotes bit 	I revers that at find is highly satisfie for the reproduction of at while permutal craps are decreasing. There is also a continued - apticularial use.
1. William holdest capacity on agricultural limit. Capacity 2017 Agriculture and Art Frod Garante.	A Contraction of the second se	
1: Wildlife hebitst capacity on agricultural land. Consola 2017. (Agriculture and Agri-Food Canada).	N. A. BARRA	- Ale and a second
	Figure 1: Wildlife habitat capacity on apricultureFiers	d. Canada 2017. (Apriculture and Apri-Fond Canada).

lational Index	PART 3 Seven Papers on Index Results Paper 6 of 7 May 2023
rformance	agrifoodindex.ca
	ply chains Focus on
food safety	
cod safety is foundational to a sustainable food sy	atem. Responsibility for food safety spans supply chain play- tio, transportation, and food withit food service, restaurants.
	se, transportation, and food reliat glood service, rediaurante, micipal, provincial, and federall play a key role to onsure food
	orts by industry and government, by extension, help to affirm
The Index addresses Rood safety under the barrier of	of Food Integrity, which includes a suite of 12 diverse metrics.
While food safety cannot be taken for granted, result reidenced by compliance with government regulato	Its from the index show that Canada's food supply is safe, as . ny requirements,
Results from the Index: Food Integ	rity Indicators
	in the prevention of food hazards (biological, chemical and so. Samples are regularly taken to ensure compliance with
	to, samples are regulary tolen to ensure compliance with administration residue limits, or the maximum amount of peeticide.
	ood or animal feed products without causing have to human
	s throughout the supply chain. Moreover, food safety regimes ling of industry compliance. The index reflects key results based
on these approaches:	
 The Product Content Compliance Indicator is a (CPIA) to inform Canadians about the safety of 	a key metric used by the Canadian Food Inspection Agency
	I the country's food supply: 8.4% of tested foods were safe and accamilely represented
· Other metrics show the sector's compliance w	
	for fruits and vegetables produced in Canada (7018-18). VRLs for meat produced in Canada (2018-19).
 97.1% compares with vecenary crug t In 2020-21, 100% of high-tak recalls were issues 	WHER for mean produced in Canada (2016-19). Und within 24 hours.
	CR) require preventative control plans (PCPs) to be implemented
in some food establishments to document hou	
	sill hoppen but how such occurrences are contained when is based on scientific principles, inspection and surveillance
practices, and continuous improvement underpin to	od salety.
interpreting the results	
Maximum residue limits	
MRLs are set for pesticides, chemicals, and drugs, i presence of residues above the VRL does not noce	and are set low to ensure there is no risk to food safety. The

- Agriculture GHG emissions:
 Absolute: 65 to 69 million tonnes CO₂ (2016-20)
 - Relatively stable since
 2005 while the sector's contribution to GDP rising
 - Emissions intensity decreasing for major food products
 - Limited sector-wide view

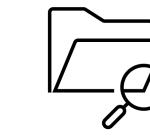
- 11% of Canadians are moderately or severely food insecure
- Wildlife Habitat Capacity on Farms: a small but incremental **decline**. Data may underrepresent habitat loss
- **98%** commercial fisheries harvesting at approved levels

- **98.4%** tested foods: safe & accurately represented
- Compliance with MRLs (maximum residue limits):
 - 98.5% (pesticides)
 - 97.7% (veterinary drugs)

In order and a set of a set of

National Index on Agri-Food Performance

Three "learnings"





Big limitation:

Data we have

Big opportunity:

Data we need

Big caution: *Data we use*

Insufficient data for reporting on breadth of sustainability priorities

Evidence to better show leadership & progress by seeking out new & better data sources Presenting & interpreting findings risks greenwashing perception

| Hallmarks of a sustainable sector... for a changing food world?

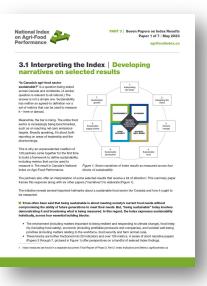
It's about the *metrics* and the *method*

| Hallmarks of a sustainable for food sector The *method* (or approach) reveals a fuller story

Being a <u>sustainable food provider</u> means...

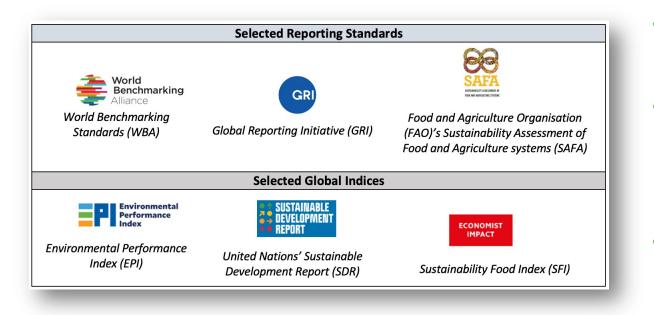
Aligning on a holistic framework

Benchmarking areas of leadership & shortcomings



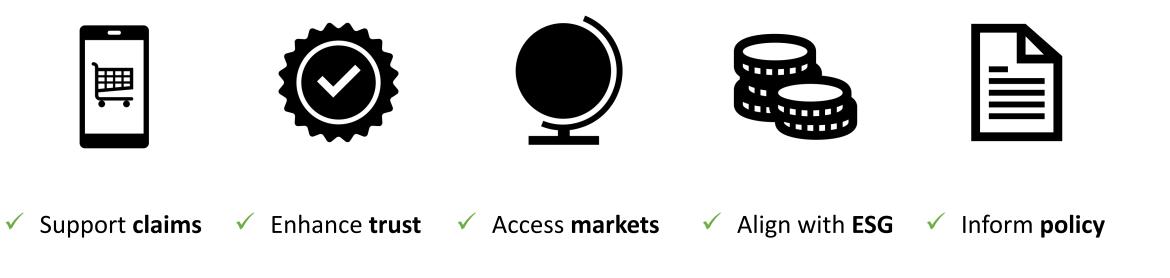
Collaborating across sector + food system to harness support & generate value

Global context Tailor for the Canadian context but be globally relevant



- Approach:
 - Canada's Index emphasizes 'outcomes' vs. 'practices'
- Intent:
 - Global schemes emphasize ranking individual organization performance / are prescriptive
 - Index: a common framework for consolidated results
- Alignment:
 - Some global schemes' metrics exceed the Index & vice versa: e.g.
 - Global schemes: water risk, child labour
 - Index: Indigenous agriculture, mental health

| Index opportunities



Partner views...

"...will help advance our sector's sustainability ... "

Canadian Canola Growers Association

"...help Canada **solidify** its position as a **global leader**..." Pulse Canada

"help...**meet** regulatory, market and consumer **demands**" Canadian Pork Council

"...CRSB intends to **contribute** regular beef sector metrics..." Canadian Roundtable for Sustainable Beef

"... an **unprecedented** coalition... to measuring sustainability" Global Institute for Food Security

"...better metrics... **inform** supporting **policy**, **innovation**... priorities" Fruit & Vegetable Growers of Canada

...this will **empower farmers**" CropLife Canada

"...a roadmap for **effective trust-building**" Canadian Centre for Food Integrity

> "...help **inform the broad claims**..." Global Pattison Food Group [Save-on-Foods]

> > "...puts numbers behind the claim that Canada's food and agricultural systems are among the **most sustainable** in the world" Cereals Canada

| Moving forward



• Build on **coalition** momentum



• Improve the Index – version 2.0 – and continue to be a leader!



• Launch the **Centre** for Agri-Food Benchmarking to take this forward, if funded

Phase 4 – selected highlights of proposed work plan

Index plan...

- 1. Address priority **data gaps** across Index pilot & evolve the Index to 2.0
- 2. Advance the **process & method** to identify new/better sources of data
- 3. Apply the Index across the sector to **build momentum & learn** from use (about value)
- 4. Consider suitability of **global assurance schemes** to step up Canada's Index & ensure global relevance
- 5. Assess **ESG requirements** & leverage the Index to advance sector interests
- 6. Through greater outreach, inform **sustainability dialogues** & project Canadian leadership

| Thank you

agrifoodindex.ca