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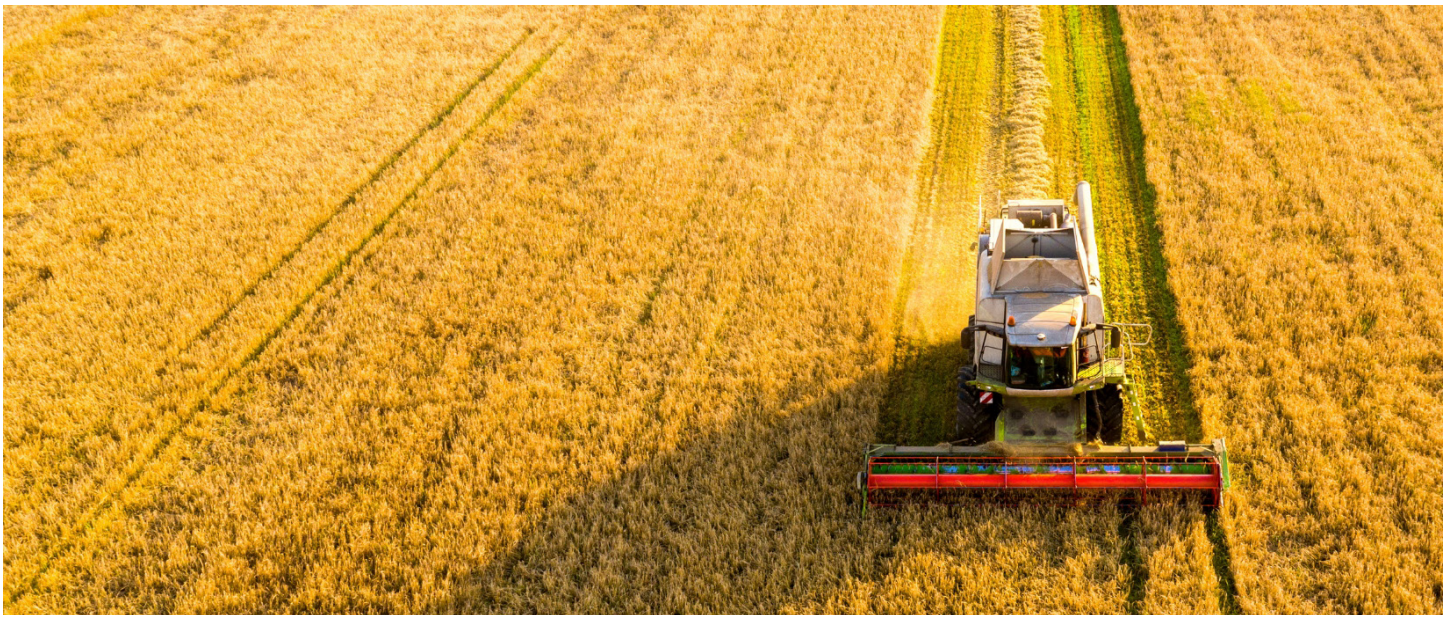
Sustainable Agricultural Value Chains

VALUING NATURE, CLIMATE, AND PRODUCTIVITY IN CANADIAN AGRI-FOOD



A Sustainable Agricultural Value Chains Initiative will accelerate the uptake of beneficial management practices at a regional scale, while driving better outcomes for the sector as a whole.

As global populations climb to 9.7 billion over the next 30 years, Canadian agriculture is uniquely positioned to meet growing demand for sustainable products, capture new revenue streams, build food system resilience, and secure the sector's future competitiveness.

Sustainable practices such as nutrient management, diversified crop rotations, and avoided grassland conversion can reduce emissions by 37.4 Mt CO2e annually – the equivalent of taking more than eight million cars off the road. These practices can be deployed over millions of acres and in major cropping systems, such as corn, wheat, and soy, while generating positive return on investment, improving soil health and productivity, air and water quality, and increasing biodiversity.

To be durable and scalable, however, these practices must provide real benefit to producers. This requires producers' engagement in the design and implementation of interventions. It also requires the involvement of not-for-profits and industry, which have the flexibility, local relationships, and expertise to design interventions to achieve both economic and agronomic outcomes for producers, and environmental benefits for all Canadians.

Regional value chains are the systems producers know best. They provide economies of scale that suppliers, retailers and buyers can engage with. They also provide the architecture through which governments can mobilize resources and deliver impact.

A Sustainable Agricultural Value Chains Initiative would launch a series of farmer-centric, multi-stakeholder collaborations at a regional-scale, providing solutions for producers in four key areas.

- **De-risk the uptake of new practices:** Producers need support to adopt beneficial management practices. Affordable debt and patient, risk-tolerant impact capital can fuel innovation, unlock capital flows, and help farmers manage financial risks.
- **Stimulate peer-to-peer learning:** Producers need advice to navigate opportunities best suited for their operations. Independent extension services centred on peer-to-peer networks can deploy knowledge and research, and support the adoption of new practices suitable for producers' geographical, agronomical, and economic circumstances.
- **Improve data collection and dissemination:** Producers need to be able to evaluate and report on the impacts of a given practice. Monitoring, reporting and verification systems, linked with harmonized and accessible public data, are needed to inform decision-making, link public policy and resources to results, and enable the valuation and marketing of premium products.
- **Demonstrate market applicability at scale:** Producers need to be recognized and rewarded for the environmental values they generate. With global agri-food markets prioritizing verified sustainability performance and climate action, new standards, partnerships and collaborations can help markets respond to climate-smart choices by actors along agri-food supply chains.

By aligning the resources and interests of producers, agri-food companies, academics and NGOs, a Sustainable Agricultural Value Chains Initiative can drive proof-of-concept, scalable solutions that balance productivity and profitability with climate, ecological and resilience values for the sector as a whole.

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Case study: Scaling adoption of no-till in Canada

Through the 1980s and 1990s, Canada undertook a multi-pronged approach to increase the economic advantage for farmers adopting conservation tillage.

A 1984 Senate hearing renewed attention on soil, sparking actions by farmer associations, equipment and input suppliers, and governments that increased the economic advantages of conservation tillage. Information sharing and demonstration farms proved that conservation tillage could generate higher yields with lower labour in input costs. Entrepreneurial farmers partnered with equipment companies to innovate and market no-till seeding machinery. Public programs reduced the upfront costs and reinforced the economic advantages for farmers. Corporate support and public policy further bolstered producers' profit.

By 2016, 82% of Canada's cropland was under conservation tillage, up from about 8% in the 1970s and 80s. This stands in contrast to other sustainable agriculture practices, like cover-cropping, which had an adoption rate of just 16% in 2016[1].

1 *Adapted from: de Cleene, et al (2023). Food, Nature and Health Transitions. Bain & Co. .*

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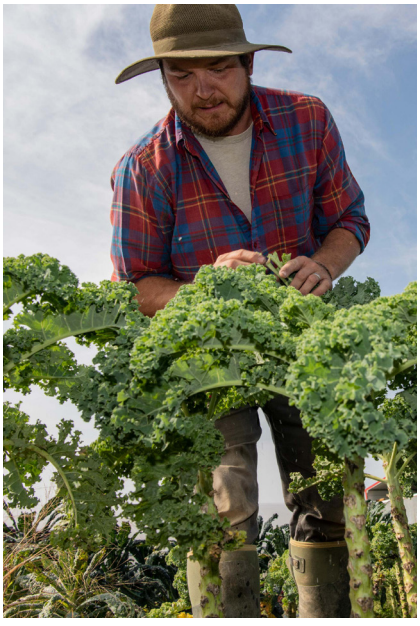
Spotlight: The U.S. Climate-Smart Commodities Program

The US Department of Agriculture's (USDA) Partnerships for Climate-Smart Commodities program provides catalytic grant funding for high-potential pilots whose publicized successes can serve as demonstration models for other actors and capital providers, spurring further investments. In the first two rounds of funding, the USDA will award up to $3.1 billion to 141 pilots selected through a competitive process and led by coalitions of corporations and NGOs.

One project led by Truterra, a sustainability-focused subsidiary of US co-operative Land O'Lakes, aims to scale-up sustainable production and marketing of grain and dairy commodities via three actions. First, to create economic advantages for farmers through the sale of ecosystem credits and downstream marketing of climate-smart commodities; second, to provide access to digital tools to verify and quantify improvements; and third, to enhance awareness of practices and technical support provided through 50 agriculture retail cooperatives. The effort comprises a broad coalition of partners including equipment manufacturers, technology companies, financial investors, consumer product companies, biofuel producers, academic institutions and smaller agriculture co-operatives.



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