CAPI
THE CANADIAN AGRI-FOOD POLICY INSTITUTE

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Striking the Balance: Proactive Strategy versus Reactive Response

A *Research* Report prepared for CAPI by Farm Management Canada

Research Report

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The Canadian Agri-Food Policy Institute's mission is to lead policy development, collaborate with partners and advance policy solutions within agriculture and food

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To ensure the validity and quality of its work, CAPI requires all *Research* Reports to go through a peer review process. CAPI thanks the peer reviewers for their comments on an earlier draft of this report.

Note from CAPI

The risks facing Canadian farmers are evolving rapidly—and the policy response will determine whether they become threats or opportunities. Too often, risk management policy is viewed narrowly as Business Risk Management (BRM) programming. While Ministers have approved changes to AgriStability and AgriInvest in response to shifting risks, tweaking programs is not an effective risk management strategy on its own.

A lack of proactive, comprehensive risk management may leave the farmers overly dependent on government supports and create gaps in risk management understanding, capacity, and confidence at the farm level. This is a lost opportunity: farmers are the first line of defense when it comes to risk management and they could be better equipped to manage risks and seize the opportunities that come with them.

This report lays out a path toward more proactive risk management. It calls for a modernized risk management framework and strategy, the establishment of a national task force and research network, and greater focus on building farmer capacity. Together, these steps chart a clear path forward for a sector that is proactive, confident, and ready for the evolving risks ahead.

Key Takeaways

- **Canada's agricultural policies are perpetuating producer dependency on BRM programs and discouraging alternatives**. Canada's agricultural sector has been overly reliant on BRM programs as the only risk management solution. Focusing on proactive planning, prevention, and preparedness through skills development, advisory services and incentive-based programming will help increase producer resilience, adaptability and confidence while alleviating stress caused by uncertainty.
- **Shifting to proactive risk management is the key to long-term sector resilience**. Investing in risk prevention and reduction strategies boosts productivity, profitability, and the adoption of innovative technologies and practices, creating a self-reinforcing cycle of reduced loss and increased economic prosperity within Canada's agricultural sector. It is also the area of risk management with the most room for effective growth.
- **Declining investments in research, knowledge transfer, infrastructure, and marketing have weakened Canada's ability to support proactive risk management**. As a price-taking nation, Canada must continue to invest in policies and programming that build the capacity for proactive risk management. Moreover, Canada's capacity to continue to support risk management in an increasingly volatile business environment through the current suite of reactive BRM programs is limited.
- **A modernized risk management framework and strategy are needed**. A nationally aligned policy framework that prioritizes risk management, developed with producer involvement and endorsement, is essential to create an equitable, effective, and comprehensive strategy that caters to the diverse and evolving needs of Canada's producers.
- **National farm data harmonization is key**. Canada relies on economic modelling to fill information gaps and provide responsive risk management solutions. Investing in integrated, standardized national farm data and performance metrics will enable targeted, evidence-based policies and more effective risk management solutions.

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Executive Summary

Risk management is a widely discussed topic in Canadian agriculture. For many, it is synonymous with the government's Business Risk Management (BRM) programs. However, BRM programs are just one piece of a comprehensive set of risk management tools that farmers can utilize to navigate and manage the diverse swath of risks they face.

In its simplest form, risk is defined as uncertainty of an outcome, which may result in undesirable consequences, or open the door to new opportunities and potential rewards. Risk management is characterized by thinking strategically in advance and applying a process by which risks are assessed and undesirable results are reduced or eliminated.

Proactive risk management focuses on identifying, minimizing and preventing undesirable results before they occur or become significant issues. On the other hand, reactive risk management focuses on recovery from loss.

While both proactive and reactive approaches play a role in effective farm risk management, a well-balanced strategy prioritizes proactive measures to reduce dependency on reactive responses, ultimately strengthening the long-term resilience and prosperity of Canadian agriculture. Unfortunately, Canada's agricultural policies, programming and dialogues are dominated by isolated, reactive risk management response. The lack of focus on proactive, comprehensive risk management has not only resulted in a dependency on government for risk management support, but a significant lack of understanding, capacity and confidence at the farm level, and a significant lost opportunity to empower farmers with the confidence and capacity for effective risk management including the opportunities it presents.

Although most farmers did not get into farming to be business managers, the reality is farming is big business and carries significant risk. With over 75% of Canada's farmers feeling a loss of control and overwhelmed by the unpredictable nature of the agricultural sector, planning ahead (i.e. proactive risk management), has been proven to alleviate stress and anxiety. By equipping farmers with the tools, education, support, and incentives to anticipate and plan for risk, we can reduce reliance on reactive, crisis-driven responses and create a more adaptable and competitive sector.

This paper provides guidance on how the Canadian government, industry and farmers can enhance risk management for Canadian agriculture by applying a risk management lens that focuses on proactive, comprehensive risk management.

It is widely agreed that proactive risk management leads to increased productivity (defined here as greater output per unit of input), which is the main contributor to economic growth in agriculture worldwide. This increased productivity generates higher profits and reserves, which in turn helps farmers mitigate financial risk from adverse conditions. Improving productivity also drives the adoption of new technologies and practices that reduce risk exposure. Risk management and productivity go hand in hand, pushing each other forward towards long-term success.

Key contributors to both agricultural productivity and proactive risk management include

investments in research and development, effective knowledge transfer, skills development and training, robust infrastructure, and strong marketing and consumer support systems. However, over the past few decades, Canada has experienced a sharp decline in investments in these areas and the factors that contribute to productivity, the impact of which is limiting Canada's capacity to create the conditions for proactive risk management.

Recognizing the complex and ever-evolving risk landscape that farms face, this paper explores ways to improve the effectiveness of farm risk management by taking a more proactive approach for the benefit of farmers and the agricultural sector at large. Prioritizing proactive risk management is not only a smart investment – it's a necessary evolution to ensure the continued strength and success of Canada's agricultural sector in the face of an ever-evolving and increasingly complex business environment.

The recommendations outlined in this paper reflect a forward-thinking, nationally coordinated approach that integrates policy, programming, research, and industry engagement. They provide a comprehensive roadmap for strengthening agricultural risk management across the country, emphasizing the importance of balancing proactive and reactive strategies, aligning policy and program development nationally, investing in education and research, and creating the conditions for farmers to succeed through better data access and analysis, collaboration, and innovation.

Policy Recommendations

Create a Risk Management-Focused Policy Lens and Framework

1. Develop a comprehensive risk management assessment and planning framework that clearly articulates objectives for a national risk management strategy, addressing proactive and reactive approaches, along with key performance indicators and measures to assess the current approach and alternatives.

2. Prioritize risk management as a core pillar of the agricultural policy framework to ensure governments at all levels provide farmers across Canada with equitable access to risk management programming, including but not limited to skills development and advisory service support.

3. Increase the engagement of farmers, risk management experts and other external players in policy and program development to ensure practical and effective solutions and impact.

Create a National Risk Management Task Force

4. Establish a National Risk Management Task Force of industry and government experts to lead the implementation of these recommendations, continue to identify current and emerging risks and recommend policy and program improvements, including education and training initiatives.

5. Examine establishing an annual National Farm Risk Management Report to measure and report on risk concerns, management strategies and identify areas for support through policy and programs including education and training opportunities to increase risk planning and mitigation.

Create a National Farm Risk Management Capacity Building Strategy

6. Continue to support the creation of a National Farm Risk Management Communication and Education Strategy to promote a comprehensive risk management framework, proactive and reactive risk management and benefits, and risk management tools and resources available and how to maximize their use, including the BRM programs.

7. Conduct a comprehensive review of risk management extension programming in Canada, including the possibility of adopting and/or adapting the US extension model in Canada.

Create a National Farm Risk Management Research Network

8. Establish a National Farm Risk Management Research Network to share work underway and enhance research capacity, coordination and collaboration.

9. Conduct a comprehensive review of farm risk management research underway, identifying gaps and opportunities. Include research on behavioural psychology to understand farmer motivation towards proactive risk management.

Increase Proactive Risk Management Incentives

10. Incentivize comprehensive risk assessment and planning through grants, tax credits and improved access to risk management programs.

11. Reassign a percentage of government funding that is currently allocated to the BRM suite of programs by re-examining and possibly eliminating AgriInvest, which in reality, has minimal impact on supporting risk management.

12. Ensure environmental cross compliance does not impact the effectiveness of risk management programs as risk management tools. Explore alternative incentives, including partnerships with lenders and insurers.

Harmonize National Farm Income Data

13. Accelerate the National Farm Income Data Harmonization project to create a national farm income database to support and improve cost of production analysis, benchmarking, and risk management program efficiency and effectiveness.

14. Establish an accreditation program for preparers of farm income tax reporting to ensure consistency and reduce verification costs for BRM programs.

To build a more resilient and competitive sector, Canada needs a modernized and coordinated approach to risk management that goes beyond crisis and disaster response and concentrates on proactive risk management. Together, these actions lay the foundation for a more prosperous and secure future for Canadian agriculture.

Introduction

Risk management is a widely discussed topic in Canadian agriculture. For many, it is synonymous with Business Risk Management (BRM) programs. However, BRM programs are just one piece of a comprehensive set of risk management tools that farmers can utilize to navigate and manage the diverse swath of risks they face.

While both proactive and reactive approaches play a role in effective farm risk management, a well-balanced strategy prioritizes proactive measures to reduce dependency on reactive responses, ultimately strengthening the long-term resilience and prosperity of Canadian agriculture.

This paper provides guidance on how the Canadian government, industry and farmers can enhance risk management for Canadian agriculture by applying a risk management lens that focuses on proactive, comprehensive risk management. Recognizing the complex and ever-evolving risk landscape that farmers face, the paper explores ways to improve the effectiveness and efficiency of farm risk management by taking a more proactive approach for the benefit of farmers and the agricultural sector at large.

Understanding Risk

In its simplest form, risk is defined as the uncertainty of an outcome, which may result in undesirable consequences, or open the door to new opportunities and potential rewards. Risk management is characterized by thinking strategically in advance and applying a process by which risks are assessed, and undesirable results are reduced or eliminated.

Before delving into the risk landscape and management strategies and tools, it is important to understand the comprehensive nature of risk management. In business, risk management is typically referred to as "enterprise risk management" to acknowledge the interplay between various risks and management strategies within the business and between product and service lines.

Chart 1: Comprehensive Risk Management Framework for Canadian Agriculture

Risk Family	Management Components
People	Occupational Health and Safety | Personal Wellbeing | Hired Labour | Family Relations | Contractors and Advisors
Finance	Money Management | Cash Flow | Debt Service | Access to Capital | Investments
Markets	Sourcing | Selling | Trade
Strategy	Business Planning | Business Structure | Governance | Transition Planning | Technology and Innovation | Operational Planning
Business Environment	Public Trust and Consumer Advocacy | Politics, Policies and Regulations | Cybersecurity
Production	Climate and Weather | Animal Health and Welfare | Nutrients | Pests | Soil, Water and Biodiversity

Farm Management Canada created the *Comprehensive Guide to Managing Risk in Agriculture* to provide such a framework[1]. Within the framework, risk is divided into six (6) risk families: People, Finance, Markets, Strategy, Business Environment, and Production.

Chart 1 details the management components within each risk family. Each management component is further broken down into specific risk areas. For example, personal wellbeing includes risks relating to personal physical health and mental health.

[1] Farm Management Canada. Comprehensive Guide to Managing Farm Risk. 2017.

Proactive versus Reactive Risk Management

While the terms “proactive” versus “reactive” are often used to describe timing – i.e. acting before and after an event occurs, such use within the context of risk management is misleading. “Prevention” and “recovery” offer a clearer and more meaningful distinction. Proactive risk management focuses on identifying potential threats and aims to prevent them from happening or becoming significant issues. On the other hand, reactive risk management focuses on recovering from loss.

In business, proactive (i.e. preventative) risk management includes:

- Identifying risk through data analysis and forecasting to plan effectively
- Implementing policies, protocols and procedures to prevent unfavourable incidents
- Investing in infrastructure, technology, education and training to reduce vulnerabilities
- Diversifying products and services, revenue streams and supply chains to withstand market fluctuations
- Establishing relationships with key people including team members, lenders, advisors, suppliers and buyers to build trust
- Value-added products and services to control prices, markets, and revenue streams
- Ensuring sufficient financial resources including cash flow and access to capital to withstand economic downturns and capture opportunity

Meanwhile, reactive (i.e. recovery) risk management includes:

- Securing insurance to help recover from loss
- Implementing emergency response plans to control damage from adverse events
- Adjusting plans, procedures, etc. following adverse events

Both approaches play a role in effective risk management in terms of preparedness and minimizing loss, however, prioritizing proactive measures can reduce the need for reactive response by reducing the likelihood of risk, while also positioning the business to capture opportunities presented by changes in the business environment.

Still, reactive risk management helps reduce the impact of events such as natural disasters or other situations where the risk is out of one’s control or the exact nature of a risk and impact is unknown.

Proactive versus Reactive Management in Farming

Using the risk management framework (Chart 1), below are some examples of proactive versus reactive risk management in farming.

Chart 2: Examples of Proactive versus Reactive Risk Management in Farming		
Risk Family	**Proactive Risk Management**	**Reactive Risk Management**
People	Human Resource Management: Establishing and following an HR policy to remain compliant with labour laws and support workplace health and safety. Human Resource Planning: Identifying and supporting labour and skills training needs in advance of the busy season. Employee Contracts and On-Boarding: Setting clear expectations to avoid labour disputes, accident or injury. Legal Contracts: Establishing written contracts to avoid conflict and disputes.	Liability, Disability, and Life Insurance: Partial or complete coverage after an incident occurs. Compliance After Violation: Adjusting practices after receiving fines or legal action. Severance: Paying severance to employees who are dismissed or quit. Public Relations: Addressing public backlash after an incident has occurred. Mental Health Support: Seeking mental health support to cope with adverse work conditions.
Finance	Financial Planning: Preparing budgets including revenue and spending plans to track performance and adjust as conditions change. Scenario Planning and Farm Stress Testing: Assessing how trends and conditions (weather, input prices, sales, interest rates, exchange rates) could impact cash flow and profitability to adjust plans. Off-Farm Income and Investments: Securing revenue outside of the farm to help with cash flow and build equity. Lender/Banker Relationship-Building: To secure favourable payment terms, restructure debt, and monitor credit risk.	Cash Flow Recovery: Delaying payments, renegotiating or securing emergency loans, reducing costs or increasing revenue by selling assets to remain viable. Price Insurance (e.g., AgriStability): To cover financial losses when income drops due to low commodity prices, rising input costs and production declines caused by weather, disease and market disruption. Credit Insurance: To protect family and dependents from debt to finance expansion or upgrades. Business Interruption Insurance: To cover loss of profit and necessary fixed expenses.
Markets	Market Planning: Cost of production, market, and benchmarking analysis to set prices and sales strategy. Hedging: Forward contracting to establish a floor price for your products.	Price Insurance (e.g., AgriStability): To cover financial losses when income drops below historical averages due to low commodity prices, rising input costs and production declines caused by weather, disease and market disruption.

	Diversifying Products, Markets and Channels: Developing multiple products, sales channels and markets to avoid overreliance on one buyer or customer type. Value-Added Products and Services: Transforming raw farm products into higher-value goods to control and capture the market.	Expanding/Reducing Production: After demand exceeds supply or vice versa. Sourcing New Suppliers, Markets and Customers: In response to increasing input prices and lost market share. Launching New Products, Services and Channels: To recapture the market or find new markets.
Strategy	Business Planning: Setting the vision, goals, performance metrics, and benchmarking and tracking progress to adjust to changing conditions. Contingency Planning: Establishing alternative plans based on changing conditions (markets, weather, human resources, etc.) and triggers for plan implementation. Business Structuring and Governance: Organizing the business structure, rules and decision-making to support long-term planning. Farm Transition Planning: Identifying and grooming the next generation of owners and managers and exit planning for expected and unexpected transition. Technology and Innovation Planning: Investing in technology to increase efficiency, track performance, reduce operational risk, and maintain competitiveness. Lean Management and Operational Planning: Record-keeping, forecasting growth and scaling operations accordingly, maximizing efficiency for productivity. Record-Keeping: Ensuring all records (financial, production, etc.) are up to date and easy to access for scenario and contingency planning.	Plan Adjustment or Contingency Planning: Adjusting plans or making alternate plans after encountering obstacles or setbacks. Structure and Governance Adjustment: Changing the business structure and governance after an incident has occurred. Records Management: Sourcing and compiling records for assessment and planning after an incident has occurred.
Business Environment	Business Environment Assessment and Planning: Regularly assessing the business environment to inform and adjust short- and long-term business planning. Public and Consumer Relations: Building relations with neighbours, the community and general public to understand and abate questions and concerns regarding farm practices. Political/Policy Involvement: Participating in policy and regulatory discussions	Plan Adjustment or Contingency Planning: Adjusting plans or making alternate plans after encountering obstacles or setbacks. Public/Consumer Relations: Addressing public backlash after an incident has occurred. Compliance After Violation: Adjusting practices after receiving fines or legal action.

	and development to stay apprised of potential risk, voice concerns, and adjust business plans. Regulatory Review: Staying informed of regulatory changes to incorporate into the business and ensure compliance. Cybersecurity Planning: Identifying cyberthreats and establishing plans, policies and procedures to prevent cyber-attacks.	Cyberattack Response: Responding to cyber-attacks after a breach.
Production	Equipment/Building Maintenance: Maintaining equipment and infrastructure to optimize performance and prevent breakdowns. Production Diversification: Producing a variety of products and services to reduce overall susceptibility to pests, disease, weather and market volatility against each product or service. Genetic Variation and Selective Breeding: Selecting crop and livestock genetics resistant to common pests, disease, and other challenges. Field Scouting and Livestock Monitoring: Monitoring for early signs of pests, disease, health and welfare issues. Biosecurity: Establishing protocols to quarantine new animals, control farm access and clean equipment to prevent disease transmission. Fencing and Predator Control: Building infrastructure to prevent animals from escaping or being attacked. Crop Rotation and Intercropping: Rotating and intercropping to reduce pest and disease pressure and improve soil health. Weather Monitoring: Anticipating adverse conditions to adjust production plans. Water Management: Using drainage, irrigation and storage, adjusting water usage based on historical and predicted weather patterns. Integrated Pest Management: Employing a combination of biological, cultural, and chemical controls to manage pests.	Production Insurance: To cover major losses caused by weather, pests and disease. Equipment/Building Repair: After equipment or infrastructure breaks down. Corrective Action: Applying fertilizer, pesticides or irrigation after considerable damage has been observed. Outbreak Response: Treating a pest or disease outbreak, culling animals or destroying crops after it has spread. Emergency Response: Implementing recovery efforts.

As shown in the chart above, there are many tools available to support proactive risk management in farming, and most reactive tools pertain to insurance to help minimize losses or actions to help cope with the aftermath following adverse events.

Reactive response to risk can also spur proactive risk management through lessons learned and putting measures in place to better prepare for future incidents.

Controlling the Uncontrollable

Risk management is about putting measures in place to manage both what is within your control and outside of your control, to the best of your ability. Proactive risk management focuses on planning and preparedness, enabling businesses to not only manage risks, but also take calculated risks and capitalize on opportunities. In contrast, reactive risk management involves mitigating and coping with the negative impacts after a risk has materialized.

Figure 1. The Risk Management Continuum

Case in Point: Weather and Climate Risk

Weather plays a significant role in Canadian agriculture and presents considerable risk to farmers. While farmers cannot control the weather, they can put measures in place to manage weather risk – both proactively, and of course, reactively. Proactive risk management includes record-keeping to assess historical weather disruptions, impact and lessons learned to better manage weather risk, monitoring weather patterns and forecasts to predict weather-related risk, investing in tile drainage, irrigation and water storage, using genetic varieties that are more tolerable to adverse conditions, cropping methods that support water drainage or retention, monitoring water availability and use, and using technology and infrastructure to support water access, management and efficiency. Reactive risk management, on the other hand, is somewhat limited to participating in insurance and other disaster relief programs, implementing emergency response plans, including recovery, and adjusting activities to manage the impact.

Risk Tolerance

Prior to assessing risk and putting management strategies and practices in place, an important part of risk management is understanding risk tolerance, that is, the amount of risk the farmer (and team) are prepared to take on or tolerate. Risk tolerance is different for everyone and depends on many distinct factors including past experience, education, confidence and perceptions of control over outcomes, as well as demographics and farmographics. For example, risk tolerance may decrease with age due to concerns about reduced time to recover from losses and a desire to preserve accumulated assets[2].

[2] Meissner, T., Gassmann, X., Faure, C., & Schleich, J. Individual characteristics associated with risk and time preferences: A multi-country representative survey. Journal of Risk and Uncertainty, 66(1), 77–107. 2022. Preprint available as arXiv:2204.13664.

The Connection between Risk and Farmer Mental Health

Farmer mental health has become a topic of increasing interest and study in Canada. A study published by Farm Management Canada in 2020 (pre-pandemic) found that 3 out of every 4 farmers (75%) were experiencing moderate to high stress. The main causes of stress cited by farmers were the unpredictability of the agricultural sector and feeling a loss of control (77%), financial pressures (73%), and workload pressures and lack of time (72%)[3].

Planning ahead, or proactive risk management, was found to alleviate stress with 88% of farmers who followed a written business plan reporting greater peace of mind, while 77% of farmers who did not follow a written business plan believed it would give them greater peace of mind.

Regularly following a written farm business plan was also shown to lead to more effective coping mechanisms when facing stressful situations such as crunching their numbers, revisiting and revising plans, and seeking outside support. Farmers who follow a written business plan were also found to more frequently follow other business practices such as adhering to a budget, benchmarking performance, seeking training, and communicating about the future of the farm with those involved, thereby improving on-farm relationships.

A 2021 survey conducted by the University of Guelph[4] found that farmer mental health further declined during the COVID-19 pandemic. Respondents mentioned rising fertilizer and fuel prices along with supply chain shortages of equipment and parts added to their stress. Notably, focusing on factors perceived to be outside of their control. Suicide ideation was twice as high for farmers compared to the general population, with one in four farmers reporting their life was not worth living, they wished they were dead or had thought about taking their own life during the past 12 months.

Proactive risk management practices are not only contributing positively to farmer mental health but also farm prosperity. *Dollars and Sense: Measuring the Tangible Impacts of Beneficial Business Practices on Canadian Farms* was the first national study to provide baseline data on the adoption of farm business practices across Canada and the first study to establish a measurable link between the adoption of business practices and farm financial performance. Farmers who adopt business management practices were found to have up to 525% more profitability[5].

Yet, farmers and arguably the agricultural industry at large tend to focus on factors that are outside of their control and programming that perpetuates reactive response.

Perpetuating Reactive Response Over Proactive Planning

When farmers were asked to rank the challenges they anticipate will impede reaching their business goals, the greatest challenges and vast majority of responses related to external factors, i.e. factors outside of the farmers' control.

Close to 80% of farmers chose rising input costs, ranking nearly two times higher than any other challenge, followed by weather, poor commodity prices and imposed regulations[6].

Only 30% of the risk factors cited were perceived within the farmers' control including cash flow and debt management, work-life balance, family and farm team harmony, and inadequate farm business management knowledge, most of which were ranked markedly lower than challenges outside of the farmers' control

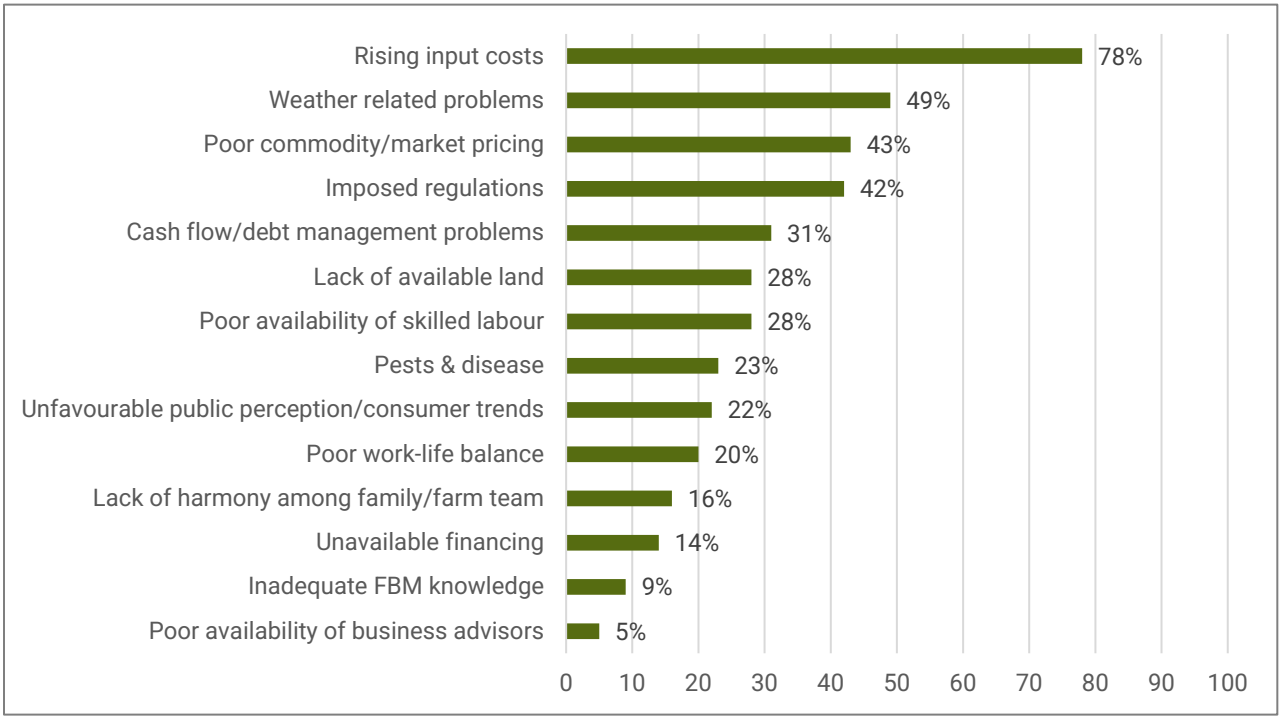
[3] Farm Management Canada. Healthy Minds, Healthy Farms. 2020.

[4] Thompson, R., Hagen, B., Jones-Bitton, A. Survey of Farmer Mental Health in Canada. University of Guelph. 2021.

[5] Farm Management Canada. Dollars and Sense: Measuring the Tangible Impacts of Business Practices on Canadian Farms. 2015.

[6] FCC Vision Panel. Farm Business Management Practices and Farm Success. 2023.

Figure 2: Greatest Challenge to Meeting Farm Goals (percent)



While most farmers did not get into farming to be business managers, the reality is farming is big business and carries significant risk. This requires farmers to have the business skills and practices to remain adaptable and resilient to thrive in agriculture's increasingly complex and uncertain business environment.

In 2015, the top 25% of farm managers in Canada (based on farm financial performance) were dedicated to continuous learning, carefully monitored and used their financial data to make business decisions, and were 30% more likely to consult with business advisors. They were 50% more likely to have and follow a written business plan, monitor and use their cost of production to inform decisions, assess and manage their risks, and have a sound financial plan that includes budget goals[7].

A follow-up study was conducted five years later (2020) to measure adoption and understand the drivers and barriers to adopting farm business practices[8]. Results reveal that between 2015 and 2020, the rate of adoption for the vast majority of business management practices had surprisingly dropped, and in some cases, significantly, including those practices that were found to have the greatest impact on farm financial performance in 2015.

Farmers reported the greatest motivators to adopting business practices were:

1. To increase profitability
2. To manage risk
3. To prepare for farm transfer/retirement
4. To reduce stress and anxiety and improve quality of life
5. To improve family/farm team harmony

However, in reality, farmers are more likely to be open to change their management behaviour when faced with trigger events and forced to respond[9].

[7] Farm Management Canada. Dollars and Sense: Measuring the Tangible Impacts of Business Practices on Canadian Farms. 2015.

[8] Farm Management Canada. Dollars and Sense Study Update: Understanding the Drivers and Barriers to Adopting Farm Business Management Practices on Canadian Farms. 2020.

[9] Rose, D. C., Keating, C., Morris, C. Understanding how to influence farmers' decision-making behaviour: a social science literature review. Agriculture and Horticulture Development Board. 2018.

Offering information, advice and support immediately following trigger events can help influence change and help guide farmers through implementation. Furthermore, helping farmers identify and understand the potential impact to their farms to anticipate and respond to trigger events such as changes to the economy, policy, disease outbreaks, natural disasters, market fluctuations and even farm transition can help motivate change.

Anecdotal evidence from farm advisors working in Canada throughout the COVID-19 pandemic found an increase in farmers seeking advice in relation to financial management and transition planning. Many farmers also became much more comfortable with digital technology such as online learning and using sensory equipment and apps to track production performance.

So, reactivity can bring about proactivity, which is good news for Canadian agriculture.

When We Don't Know What We Don't Know

George W. Bush's former defence secretary, Donald H. Rumsfeld famously once said:
"There are known knowns — there are things we know we know.
We also know there are known unknowns — that is to say, we know
there are some things we do not know. But there are also unknown unknowns,
the ones we don't know we don't know."

The same is true for farmers – there are things they don't know they don't know – so asking farmers what they need in the context of farm business management or risk management support may yield limited results, especially for farmers who have limited experience or education on these topics.

A recent study commissioned by the Canadian Agri-Food Policy Institute (CAPI)[10] asked farmers to report their levels of confidence in managing risk based on the six risk families mentioned above. Farmers were also asked to report on the risk management practices they had in place. Confidence in managing strategic risk and markets increased with farm size, and overall confidence was higher among farmers under 35 years of age, however farmers who had risk management practices in place (e.g., a written strategic business plan, budgeting and forecasting, benchmarking, human resource management practices, etc.) reported markedly higher confidence in managing risk, even when anticipating increased risk.

Farmers were also asked to assess the level of support they receive from government and private industry for proactive and reactive risk management. Overall, the vast majority of farmers reported they were receiving the right amount of proactive (77%) and reactive (61%) risk management support from private industry. On the other hand, less than 40% reported they were receiving the right amount of support from government for both proactive and reactive risk management (37% and 39%, respectively). However, again, those farmers who had risk management practices in place were more likely to participate in government programs and report the level of proactive and reactive support from government was just right. In fact, they would be willing to pay more for better coverage. They were also more likely (56%) to report the role of government is to help farmers manage disaster situations, whereas farmers with few risk management practices in place reported the role of government is to protect farm incomes and ensure farmers are profitable.

Results from Farm Management Canada's Roots to Success project (2019-2023)[11] demonstrates the importance of providing a mechanism for in-depth assessment prior to planning.

Over the course of the project, hundreds of producers from across Canada were asked to complete a preliminary risk assessment (the Risk Roadmap) prior to completing a more comprehensive, in-depth risk assessment for their farm using the AgriShield® online risk assessment and planning platform.

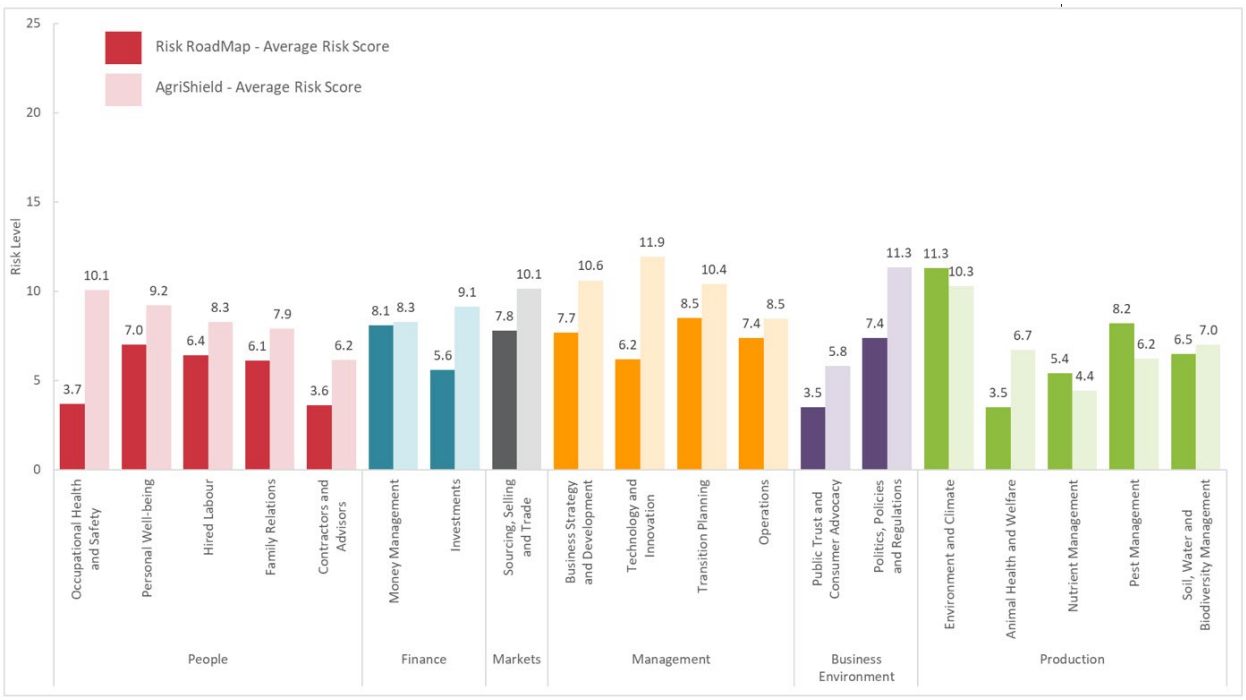
As participants were asked to look a little deeper into their risks using a comprehensive risk assessment platform, they ended up with markedly different results than their preliminary assessment.

[10] Canadian Agri-Food Policy Institute. Producer Perspectives on Risk Management. January 2025.

[11] Farm Management Canada. Roots to Success Risk Management Profiles of Canadian Farmers. 2023.

Production-based risks were ranked higher in the preliminary assessment. However, following the completion of a more comprehensive risk assessment, other risks, notably risks associated with people, management and the business environment (i.e. strategic risks) were rated higher. This highlights the importance of using a comprehensive approach to work through a thorough assessment before investing in risk management strategies for the farm.

Figure 3: Comparison of Risk Scores: Basic versus Comprehensive Analysis



Supporting Farm Risk Management

Proactive and reactive risk in agriculture is not the sole responsibility of farmers. The Canadian federal and provincial/territorial governments and industry can and do play an essential role in effectively managing agricultural risk.

The Role of Government

In response to the volatile nature of agricultural production that threatens the economic viability of farmers, Government support programs have been established. These support programs come in the form of cost-share funding, direct payments, tax exemptions, insurance programs, import tariffs, and export subsidies.

The Sustainable Canadian Agricultural Partnership (Sustainable CAP) is a $3.5-billion, 5-year agreement (beginning April 1, 2023 and ending March 31, 2028), between the federal, provincial and territorial (FPT) governments "to strengthen the competitiveness, innovation, and resiliency of the agriculture, agri-food and agri-based products sector"[12]. The agreement includes $1 billion in federal programs and $2.5 billion in cost-shared programs funded by federal (60%), and provincial and territorial governments (40%).

Sustainable CAP focuses on 5 key priority areas: 1) building sector capacity, growth and competitiveness, 2) climate change and environment, 3) science, research and innovation, 4) market development and trade, and 5) resilience and public trust.

Presumably, risk management is embedded in these priority areas, however not overtly, and having a separate category for Business Risk Management

[12] Agriculture and Agri-Food Canada. Sustainable Canadian Agricultural Partnership. Retrieved from https://agriculture.canada.ca/en/department/initiatives/sustainable-canadian-agricultural-partnership

Proactive vs reactive risk management

(BRM) Programs may be responsible for many farmers thinking business risk management is limited to government support programming.

Federally-only funded programs

Federally-only funded programs support non-profit and private business through cost-share programming and represent $644.89 million of the total federal program budget. These programs are designed to foster sector development and growth and therefore can be considered to support proactive risk management. The programs have been listed in the chart below descending from most to least budget allocation.

Chart 3: Federal Programs under the Sustainable Canadian Agricultural Partnership

Focus Area	Program Name	Budget	Description
(not available)	AgriScience	$324.77 million	Accelerates the pace of innovation by providing funding and support for pre-commercial science activities and research.
Growing Trade and Expanding Markets	AgriMarketing	$129.97 million	Helps industry expand exports and seize new market opportunities.
Innovative and Sustainable Growth of the Sector	AgriInnovate	$95.4 million	Supports commercialization, demonstration and adoption of innovative technologies and processes.
(not available)	AgriAssurance Program	$64.05 million	Helps foster public trust about the safety of Canadian agri-food products.
Growing Trade and Expanding Markets	AgriCompetitiveness	$25.7 million	Helps industry share information with producers to build capacity and support the sector.
Supporting Diversity and a Dynamic Evolving Sector	AgriDiversity	$5 million	Helps underrepresented groups participate in the sector.

FPT-funded programs

FPT-funded BRM programs provide direct-to-producer financial support and for the most part act as insurance to support recovery from adverse events. As such, BRM programs are considered to support reactive risk management with the exception of AgriInvest.

Chart 4: Business Risk Management Programs under the Sustainable Canadian Agricultural Partnership

Program Name	Budget	Description
AgriStability	Varied (demand-driven) (e.g., $331.7M in 2022-23, 394.5M in 2023-24)	Provides support when producers experience a large margin decline.
AgriInsurance	Varied (limited demand-driven) (e.g., $5.5B between 2017-22)	Offers cost-shared insurance against natural hazards to reduce the financial impact of production or asset losses.
AgriRecovery	Varied (demand-driven) (e.g., $500M in response to drought and wildfires in 2021)	A disaster relief framework to help producers recover from natural disaster events.
AgriInvest	Varied (limited demand-driven) (e.g., $122.9M in planned payments in 2022-23)	Provides matching funds to help producers manage income declines.

While the BRM programs play an important role in managing on-farm risk, spending increased from $1.1 billion in 2019-20 to $1.9 billion by 2024-25. Such increases in spending calls into question Canada's capacity to continue to support reactive risk management in an increasingly complex and volatile business environment. Further, within the framework, certain sectors (e.g. dairy, poultry and egg producers) have been allocated additional funds to compensate for market risk resulting from international trade agreements[13]. Again, a reactive approach.

Interestingly, the AgriRisk Initiatives Program (ARI) was launched under the Growing Forward 2 policy framework and continued under the Canadian Agricultural Partnership (CAP); the predecessor to Sustainable CAP. This $55 million program was designed to "enhance the capacity of Canadian agricultural producers to manage business risks by supporting the research, development, implementation, and administration of new risk management tools, including insurance-based products"[14]. The program was not renewed under Sustainable CAP. It was under ARI that Farm Management Canada received $1.8 million to create AgriShield® – a comprehensive risk assessment and planning platform for producers – and provide training and education to farmers and industry professionals to support proactive risk management.

Focusing on the $2.5 billion in cost-shared programs and activities available to provincial and territorial governments, program parameters and priorities are set by the FPT governments through bi-lateral agreements that adhere to the 5 priority areas set out in the overarching agricultural policy framework. While this model theoretically allows for regions to deliver programming that meets the unique needs of producers, it presents challenges in understanding the sector-wide impact of programming and can transpire into incoherence in progress towards national objectives and a lack of robust performance measurement[15].

Beyond the BRM programs, there is no specific mandate for provinces and territories to support proactive business risk management. In fact, under Sustainable CAP and its predecessor, CAP, a number of Canada's larger provinces discontinued their farm business management support programs. Producers in Alberta, Saskatchewan, Manitoba, and Ontario can no longer apply for cost-share funding to support skills development and advisory services related to business management (including risk management). Arguably, these changes in support send a message to farmers that farm business management and likewise proactive risk management are not valued. It stands to reason that the majority of Canada's farmers are not implementing proactive management practices because the key ingredients that support such behaviour are missing.

As part of its Agricultural Policy Monitoring and Evaluation report[16], the OECD has called on governments to re-allocate government support towards rewarding farmers for sustainable practices and improvements, and research and development to support sustainable productivity and growth. And further, to support skills development and tools to help farmers assess risk and put risk management plans and measures in place. Food for thought, for Canada.

If Canada was to follow through with these recommendations, rather than increasing the total budget for BRM programs, it may be possible to simply reallocate funds from less efficient programs. One particular program, the AgriInvest program, which falls under the government BRM suite of programs, has had questionable results on the risk management front. In fact, the program's flexibility regarding the use of matched funds by farmers makes it almost impossible to link directly to risk management. Although it is considered a Business Risk Management program, the program simply matches any deposit into a specified bank account (up to 1% of the annual net sales of the farm capped at $1million per year) without boundaries or limitations regarding the use of these matched

[13] Canadian Agri-Food Policy Institute. Review, Restrain, Reset. March 2025.

[14] Agriculture and Agri-Food Canada. AgriRisk Initiatives Program is now available under the Canadian Agricultural Partnership. Retrieved from https://www.canada.ca/en/agriculture-agri-food/news/2018/07/agririsk-initiatives-program-is-now-available-under-the-canadian-agricultural-partnership.html?utm_source=chatgpt.com

[15] Canadian Agri-Food Policy Institute. Review, Restrain, Reset. March 2025.

[16] OECD. Agricultural Policy Monitoring and Evaluation 2022: Reforming Agricultural Policies for Climate Change Mitigation. 2022.

funds once they are withdrawn from the account. Although the program may have originally been conceived to help manage income declines during difficult periods for a farm, the scale of the program (1% of ANS at a maximum contribution of $10,000 per year) does not allow for any significant effect on farm finances during times of need, nor do producers necessarily use these funds for their intended purpose. In reality, the matched funds can be used for anything. It could be argued that the $120M+ budget allocated to this program, if used more purposefully and in a more directed fashion through a different program, could have a much more significant impact on farm risk management in Canada and fulfil its original purpose.

The Role of Farm Advisors

Farmers call upon a number of industry professionals to provide advice and guidance. Within the context of farm business management, and more specifically, risk management, the most frequently called upon professionals are accountants, lenders, and lawyers[17].

Financial institutions and lenders use several criteria when assessing client risk and making lending decisions. However, anecdotal evidence suggests farmers are not aware of the criteria and the impact their risk rating has on lending decisions, fees and rates.

While studying how relationships between farmers and advisors regarding financial management are shaped, researchers in New Zealand found that shifting the approach in delivery of financial advice from knowledge transfer to knowledge exchange helped build trust between farmers and advisors and facilitated greater cooperation[18]. Creating an environment that promotes knowledge exchange helps get advisors and farmers speaking the same language, providing much-needed comfort for farmers who often feel intimidated by discussions concerning farm financials. Farmers must possess or be trained in financial literacy in order to contribute fully to financial management discussions and decision-making.

Indeed, the researchers found that financial reports and financial terms commonplace in the vernacular of accountants and advisors were often not understood by many producers. Further, financial management was not central to a farmers' identity (relative to production management) and most farmers do not seek out financial advice, per se. Budgets were often seen by farmers as a vehicle to secure a loan rather than a tool to help manage risk and drive performance. Likewise, working with an accountant was motivated by saving tax.

Interestingly, bankers were shown to be the key advisors farmers turn to for financial management advice – part of the reason for this is that farmers can gain advice from their banker without paying fees. The researchers call this "embedded advice" and note that this relationship creates more trust between farmers and bankers even when disclosing financial challenges could impact loans.

On the contrary, paying fees appeared to inhibit some farmers from seeking financial advice from their accountant. They also felt accountants focused too much on the past whereas bankers and other advisors focused on the future – in other words, proactive risk management through assessment, planning and preparation.

Incentivizing Farm Risk Management

As evidenced by the cost-share and compensation funding models used by governments, financial incentives tend to be the most common approach to encouraging new practices such as on-farm risk management. However, incentives are not always about gain. There is another side to incentives – the threat of loss. An example of rewarding desired management behaviour could be access to special funding for completing a farm risk assessment or having a risk management plan, whereas an example of discouraging negative behaviour could be cross-compliance requirements or exclusion from government support or lending programs for not having a risk management plan.

Research provides no definitive answer on what strategy works best when it comes to motivating farmers to adopt risk management practices.

[17] Farm Management Canada. Dollars and Sense Study Update: Understanding the Drivers and Barriers to Adopting Farm Business Management Practices on Canadian Farms. 2020.

[18] Hilkens, A. Reid, J.I. Klerkx, L. Gray, D.I. Money talk: How relations between farmers and advisors around financial management are shaped, Journal of Rural Studies, Volume 63, Pp. 83-95. 2018.

However, incentives are often not enough. They must make sense to the producer. In an effort to promote on-farm environmental practices, Agriculture and Agri-Food Canada recently introduced cross-compliance measures whereby farmers seeking the maximum government matching funds under AgriInvest, must submit an Agri-Environmental Risk Assessment (AERA). However, industry and farmers struggle with the rationale; the reason for environmental practices is markedly different from the reason for participating in BRM programs[19].

Return on Investment

Studies have shown formal management training has a positive financial impact. As mentioned earlier, the *Dollars and Sense* study showed farmers who adopt business management practices including a commitment to business skills development were found to have up to 525% more profitability than those who do not[20]. New Zealand's Agriculture Industry Training Organisation found a net return of $2.40 to $3.96 per $1.00 spent on training[21].

In 2018, Martin and Broughton undertook an evaluation of the CTEAM (Canadian Total Excellence in Agricultural Management) program[22]. The program helps producers learn about fundamental business management practices, assess their business practices and farm performance, and create a strategic business plan to propel the business forward. Program alumni were asked to estimate their return on investment in three key performance areas: financial performance, business operations and personal.

Figure 4: Distribution of Self-Assessed Return on Investment by CTEAM Graduates

Estimated ROI	<5%	5-10%	10-20%	20-30%	30-50%	50-100%	>100%
Financial Performance	3.70%	0.00%	7.41%	14.81%	14.81%	25.93%	33.33%
Business Operations	3.70%	0.00%	7.41%	11.11%	11.11%	22.22%	44.44%
Personal	7.41%	0.00%	11.11%	7.41%	14.81%	11.11%	48.15%

For all three categories, the results are impressive where average return on assets within the agricultural sector are typically 3-5%. Morris, et. al.[23], and Zwilling[24] have further shown that adopting business management practices can easily lead to 100% returns over and above the investment cost.

As shown by Martin and Broughton, return on investment goes far beyond financial outcomes. Countless studies have shown that formal management training and peer-to-peer learning programs have a positive influence on attitudes including a willingness to listen, learn and change, taking a professional approach to farming, systems thinking and planning, building confidence, improving communication and working with others including family, mental health and wellbeing, and the adoption of management behaviours including risk management.

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[19] Mussell, A., McCann, T. Challenges with Cross Compliance and Agricultural Business Risk Management Programming in Canada. The Canadian Agri-Food Policy Institute. 2022.

[20] Farm Management Canada. Dollars and Sense: Measuring the Tangible Impacts of Business Practices on Canadian Farms. 2015.

[21] Jeremy D. Neild and Dennis J. Radford Identifying and Reporting the Value-Added from Training in Four New Zealand Industries. ASL. 18th IFMA Congress Proceedings. 2011.

[22] Martin, L., Broughton, H. Understanding the Value of Business Management Training for Agricultural Producers: The Case of CTEAM, AgriFood Management Excellence Inc. 2018.

[23] Morris, Cooper, Dhuyvetter, Kevin, Yeager, Elizabeth A., Regier, Greg, "The Value and Feasibility of Farming Differently Than the Local Average", Journal of Applied Farm Economics, Volume 2, Issue 1, 2018.

[24] Zwilling, B. "Characteristics of Higher Profit Farms – 2011 through 2020." farmdoc daily (11):94, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 17, 2021.

Proactive Risk Management within the Global Context

Within the global context, the United States (US) and European Union (EU) have an incredible impact on Canadian agriculture as key trading partners and price-setters. Both the US and EU are among the largest agricultural producers and exporters in the world, allowing them to influence global agricultural prices. Furthermore, major global agricultural commodity exchanges are based in the US and EU, which determine the benchmark price for key commodities.

While Canada is a significant exporter of products like wheat, canola, pork and beef, its market size is much smaller in comparison. This means Canada must accept international prices, which makes Canada's farmers price-takers. This price-taking situation applies to both production outputs and key inputs, which presents a much more challenging situation when it comes to risk management. For example, when the US has a bumper corn crop, prices will decline, but total revenues either at the sectoral level or farm level will be relatively stable. Following the principles of supply and demand, whereby limited supply increase demand and as such the price, production and prices are negatively correlated for a price-setter. For a price-taking country like Canada, if production falls, there can be little to no offsetting impact on price. This often drives farm level reactive risk management as the key response to such challenges which in turn pushes the focus onto government BRM programs such as AgriStability, which as noted earlier is designed to support producers who experience a large margin decline.

Productivity Growth as Proactive Risk Management

Still, there is much that can be done in a price-taking environment by governments, industry and farmers to proactively manage risk.

It is widely agreed that more proactive risk management leads to increased productivity (defined here as greater output per unit of input), which is the main contributor to economic growth in agriculture worldwide. This increased productivity, which generates higher profits and reserves, in turn helps farmers mitigate financial risk from adverse conditions. Improved farm productivity also drives the adoption of new technologies and practices that reduce risk exposure by increasing income stability, reducing reliance on risky ventures, and enabling investments in proactive risk management strategies. Risk management and productivity go hand in hand, pushing each other forward towards long-term success.

Proactive risk management activities made possible by productivity growth include:

Increased Income Stability: Higher yield and efficiency translate to a more stable and predictable income stream, which is crucial for managing financial risks.

Resilience to External Shocks: Productive farms are better equipped to withstand external shocks like climate change, market fluctuations, and pest and disease outbreaks, as they have a stronger foundation to absorb these impacts.

Building Financial Reserves: Productivity gains often translate into profitability, increasing the farmers' capacity to build equity to buffer against price fluctuations, unexpected costs, and take advantage of new opportunities (such as investing in new business ventures, land, etc.).

Reduced Reliance on Risky Ventures: Productivity gains allow farmers to reduce their dependence on high-risk crops or farming practices (e.g., monoculture production), as they can achieve profitability with a wider range of options.

Investment in Risk Mitigation Tools and Practices: Increased income and financial stability enable farmers to invest in risk management tools, such as insurance, infrastructure such as improved storage facilities or irrigation, diversification of products and services including value-adding, or new technology to enhance farming methods.

Improved Decision-Making: Data-driven insights from efficient farming practices help farmers make more informed management decisions to optimize input use and reduce waste, while identifying

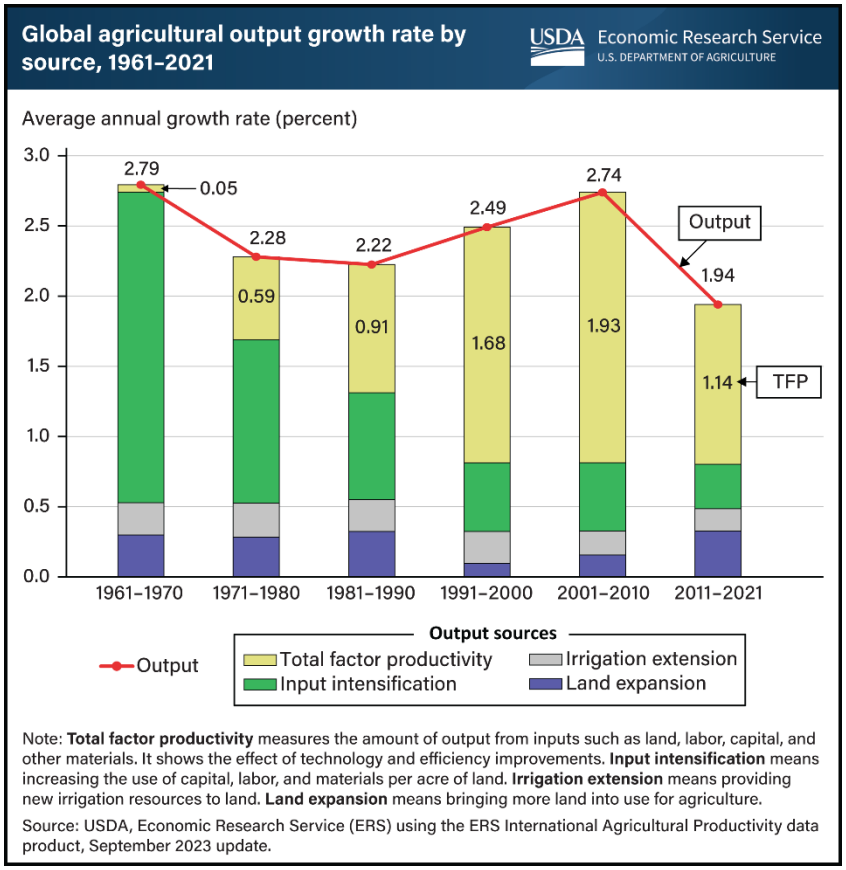
potential risks and further reducing the risk of losses or other adverse outcomes.

As productivity grows, farms gain more resources, flexibility, and stability to implement forward-thinking risk management strategies, making them less reactive and more resilient. This increased resilience through proactive risk management allows farmers to reduce the negative financial impacts resulting from poor preparedness in the face of a risk event, thereby increasing average farm productivity.

Despite the importance of agricultural productivity, the United States Department of Agriculture (USDA) Economic Research Service (ERS) shows global agricultural productivity growth has slowed in recent years (Figure 5)[25].

Total Factor Productivity (TFP) measures the efficiency with which all inputs (such as labour, capital, land, and materials) are used to produce output. It reflects productivity growth that cannot be explained by increases in input use and is often attributed to improvements in technology, management practices (including risk management practices), and innovation through research, education, and infrastructure. In agriculture, TFP indicates how effectively resources are converted into food and other products, independent of input growth. While productivity growth has slowed down within the last decade, including TFP, it is important to note the significant contribution TFP has made to overall productivity, especially when compared to inputs.

Figure 5: Global Average Output Productivity Growth (1961-2021)



This is a major concern both in terms of production and proactive risk management.

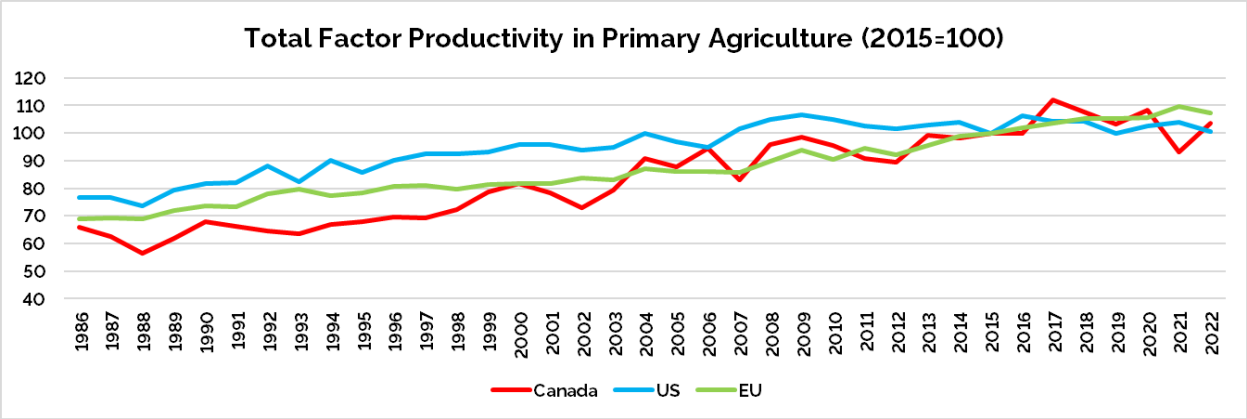
Taking a closer look, the graph below (Figure 6) shows data from OECD on TFP for primary

[25] Fuglie, K. Growth rate of global agricultural output has slowed. U.S. Department of Agriculture, Economic Research Service. 2023.

agriculture in Canada, the US and the EU since 1986[26].

As also shown by the USDA (Figure 5), productivity gains have slowed. This is particularly important for Canada as a price-taker in international markets driven by these two largest agricultural exporters and price-setters. This comparison is also important given Canada's free trade agreement with both jurisdictions. The time frame outlined is also important in that it spans the period in which Canada and the US have been in the world's longest standing free trade agreement.

Figure 6: Total Factor Productivity in Primary Agriculture (2015 = 100): Canada vs US vs EU



Governments, industry and farmers all have a vital role to play in improving agricultural productivity.

Some examples of productivity improvements:

Artificial Intelligence and Data Analytics: Using technology to monitor production and analyze data to identify opportunities for increased efficiency and productivity.

Automated Machinery: Using robotics to reduce labour requirements and improve accuracy and efficiency.

Precision agriculture: Using technologies like GPS, drones and sensors to optimize resource use (reduce the risk of over- or under-utilization) and improve yields.

Improved Genetics and Breeding: Adapting to local environments, a changing climate and a need to better utilize key inputs, including high-yield, pest-resistant, disease-resistant, and drought resistant genetics for livestock and crops.

Using the Right Tools and Equipment: Utilizing efficient machinery and technology to achieve gains in productivity and reduce the risk of losses due to equipment failure or inefficiencies.

Key contributors to agricultural productivity include investments in research and development, effective knowledge transfer, skills development and training, robust infrastructure, and strong marketing and consumer support systems. Together, these elements drive innovation, improve efficiency, and enable farmers to make informed decisions, all of which strengthen the sector's capacity to manage risk and uncertainty in an increasingly complex environment. Each of these contributors is explored in more depth below.

Research and Development as Proactive Risk Management

Public research is typically conducted by government agencies, universities, and research institutions and organizations with a broad focus towards the greater good, supporting long-term societal goals. Research results are published

[26] Organisation for Economic Co-operation and Development. (n.d.). General Support Services Estimate. Retrieved from https://www.oecd.org/en/topics/policy-issues/agricultural-policy-monitoring.html#country-data

openly. Private research, on the other hand, is typically driven by corporations focused on commercialization and competitive advantage. Both public and private funded research play an essential role in driving innovation and productivity in agriculture.

Public investment in agricultural research and development (R&D) has resulted in significant economic benefits with annual rates of return between 20 and 60 percent[27]

R&D is deeply connected to both productivity and proactive risk management because R&D drives innovation, efficiency, and adaptability, which helps the agricultural sector and its farmers anticipate, mitigate, and put measures in place to manage risks before becoming major problems. R&D is responsible for building sector resilience through the development of new crop and animal genetics and breeding methods to tolerate adverse conditions and perform better, vaccines and biological controls to minimize outbreaks, data analytics and forecasting to anticipate and respond to economic and market conditions, and precision agriculture for efficient resource use. R&D fuels proactive risk management by providing the tools, technologies, and insights needed to navigate uncertainty. By investing in public R&D, the agricultural sector can help farmers reduce vulnerabilities, increase efficiency, and build long-term resilience.

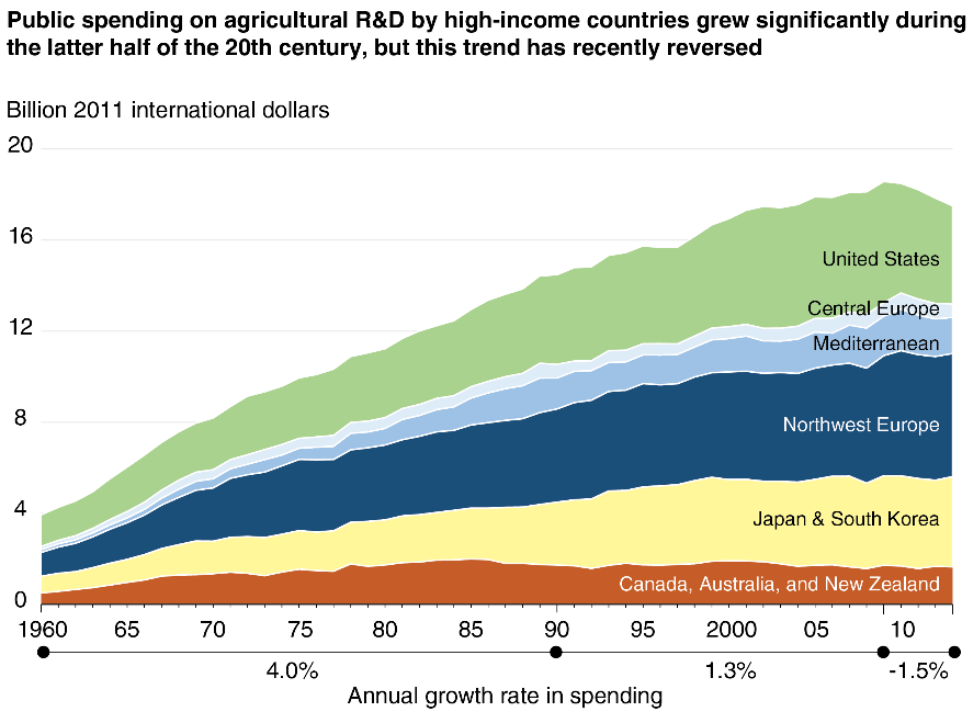
ERS research shows that growth rates in public R&D in high-income countries as a group have slowed[28]. While public agricultural research expenditures for high income countries (adjusted for inflation) grew rapidly after 1960, growth slowed markedly in recent decades and has now turned negative. In constant 2011 dollars, public agricultural R&D spending in these countries grew from $3.9 billion in 1960 to a peak of $18.6 billion in 2009, before declining to $17.5 billion by 2013 (the latest year with complete data). This decline in public R&D spending marked the first sustained fall in agricultural R&D investment by these countries in 50 years and was most pronounced in the United States and Southern Europe. The United States continues to lead among high-income countries in public agricultural R&D spending, but the US share of the total declined from 35 percent in 1960 to less than 25 percent by 2013[29].

[27] Fuglie, K., & Heisey, P. Economic Returns to Public Agricultural Research (EB-10). U.S. Department of Agriculture, Economic Research Service. 2007.

[28] Heisey, P., & Fuglie, K. Agricultural Research Investment and Policy Reform in High-Income Countries (ERR-249). U.S. Department of Agriculture, Economic Research Service. 2018.

[29] Heisey, P. W., & Fuglie, K. O. Public agricultural research spending and U.S. agricultural productivity: An international perspective. U.S. Department of Agriculture, Economic Research Service. 2018.

Figure 7: Public Spending on Agriculture R&D by High-Income Countries



Note: Estimated research and development (R&D) expenditures in local currency for each year are converted to 2011 international dollars by first using the Gross Domestic Product deflator for each country to convert to 2011 local currency units; and then using a "purchasing power parity" (PPP) exchange rate to convert to 2011 dollars. The PPP exchange rate is based on a common basket of consumer goods and provides a better basis for comparing expenditures across countries than the market exchange rate.
Source: USDA, Economic Research Service using data from the Organisation for Economic Co-operation and Development (OECD), Main Science and Technology Indicators; Pardey and Roseboom (1989) *ISNAR Agricultural Research Indicator Series*; World Bank World Development Indicators; and numerous supplementary sources.

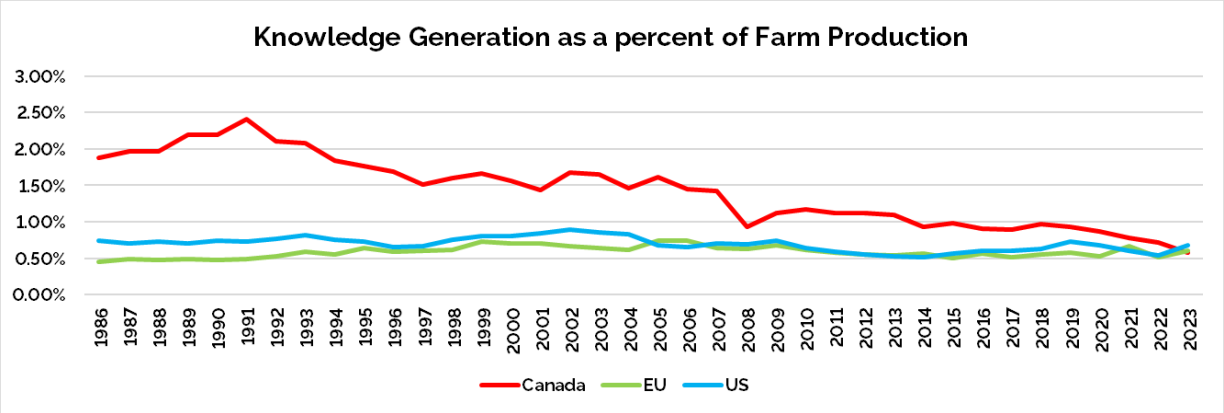
To estimate the likely impacts of public R&D funding choices on productivity growth, ERS projected future productivity growth with alternative public R&D investment scenarios[30]. This analysis found that declines in public R&D have a more pronounced effect in the long run than in the short-term. Even if public R&D investment recovers, future productivity growth (in terms of total factor productivity) would take some time to resume due to the lag between research investment and application.

The graph below outlines OECD data on total government (at all levels) expenditure on knowledge creation which includes publicly-funding research[31]. While not a large percent of total production, the US and EU in nominal terms have been continuing to make a relatively steady investment in knowledge generation, especially compared to the dramatic decline seen in Canada. When expressed in real terms to address prices over time, the US and EU number is also falling but not at near the rate seen in Canada.

[30] Heisey, P., Wang, S. L., & Fuglie, K. Public Agriculture Research Spending and Future U.S. Agricultural Productivity Growth: Scenarios for 2010-2050 (EB-17). U.S. Department of Agriculture, Economic Research Service. 2011.

[31] Organisation for Economic Co-operation and Development. (n.d.). General Support Services Estimate. Retrieved from https://www.oecd.org/en/topics/policy-issues/agricultural-policy-monitoring.html#country-data.

Figure 8: Knowledge Generation as a percent of Farm Production: Canada vs US vs EU



While Canada is currently on pace with the US and EU, as a price-taker in a northern climate that requires distinct research and investment as such, an increased emphasis on knowledge generation through public and private research is crucial to manage trade, climate, and other risks facing the agriculture sector.

While funding available under Sustainable CAP indicates a renewed commitment to agricultural research, the focus has been limited to tackling environmental risk and does not address the other facets of sustainability including economic prosperity and social responsibility, nor does it address the myriad of other risk areas outlined in the comprehensive risk management framework for agriculture.

In terms of agricultural research, the vast majority of research is targeted towards increasing productivity through crop science and animal science and does not address farm business management as a key component of increasing productivity. And while there is funding available for business risk management research, it is limited to studying BRM programs and improving government policy.

Prescriptive rather than progressive funding for risk management research and the lack of national leadership and coordination is hindering Canada's farmers innovation, competitiveness and resilience.

Knowledge Transfer, Skills Development and Training as Proactive Risk Management

Productivity gains and the proactive risk management benefits that it can offer do not come from knowledge generation alone. Knowledge transfer and translation (KTT) is vital and it is also something in which governments, industry and farmers all play a role.

KTT in agriculture refers to the sharing and adapting of research findings to support the development of policies, strategies, and most importantly, the implementation of on-farm practices; it bridges the gap between scientific research and practical application to ensure farmers, policymakers and other industry players can understand and use the knowledge. KTT combined with skills development and training improves productivity by enabling farmers to adopt better practices, technologies, and management strategies, ultimately leading to increased yields and resource efficiency towards long-term sustainable growth and resilience.

Examples of KTT sources include:

Research Institutions: Research institutions play a vital role in developing and disseminating new knowledge and technologies.

Extension Specialists: Agricultural extension personnel from government, research institutions, and industry organizations who provide farmers with access to information, skills development training, and technical assistance through one-on-one and group consultation and support.

Proactive vs reactive risk management

Extension Services: Information sharing through learning events including conferences, webinars, demonstrations, workshops, and training, learning tools including videos, podcasts, papers, guides, case studies, factsheets, apps and software, calculators, templates and other practical tools.

Knowledge Hubs: Online platforms for farmers and sector players to exchange insights and experiences.

Advisory Councils and Innovation Networks: Knowledge exchange between researchers, policymakers, farmers and other industry leaders to share insights and experiences.

Peer Networks: Networks and communities of practice, allowing farmers to share their experiences and learn from each other.

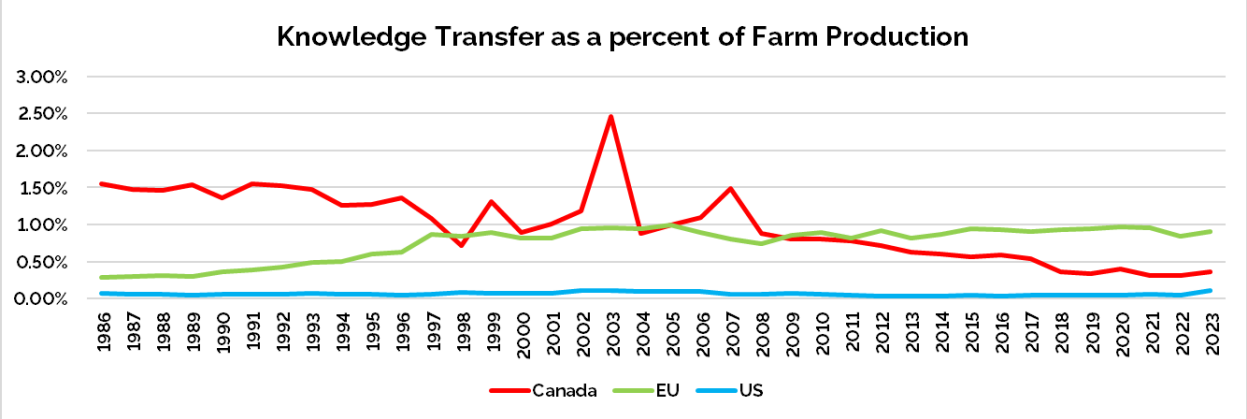
Mentorship Programs: Experienced farmers mentor other farmers on implementing best practices and emerging technologies.

By implementing KTT, skills development and training activities, agricultural knowledge moves beyond government and research institutions into the hands of farm groups, farmers, industry groups, policymakers, and other industry professionals ensuring real-world impact and continuous innovation.

KTT, skills development, and training help farmers anticipate, prepare for, and mitigate risks by having access to the latest research-backed strategies, technologies, and decision-making tools to proactively manage risk.

The graph below outlines OECD data on total government (at all levels) expenditures on knowledge transfer which includes publicly funded extension services[32]. The difference between Canada and its two price-setting free trade partners is significant. While not a large percent of total production, the US and especially the EU have been continuing to make a relatively steady investment in knowledge generation when compared to the dramatic decline seen in Canada. When expressed in real terms to address prices over time, the US and EU number is also falling, but not at near the rate seen Canada.

Figure 9: Knowledge Transfer as a percent of Farm Production: Canada vs US vs EU



While Canada is currently on pace with the US, as a price-taker in a northern climate that requires distinct research and additional knowledge transfer efforts, an increased emphasis on knowledge transfer through government, industry and even farmers themselves is crucial to manage trade and climate risks facing the agriculture sector.

Of course, there are challenges when it comes to KTT. Even with the best extension services, some farmers may not access the information and

[32] Organisation for Economic Co-operation and Development. (n.d.). General Support Services Estimate. Retrieved from https://www.oecd.org/en/topics/policy-issues/agricultural-policy-monitoring.html#country-data

resources available. This may be because they choose not to access the information or cannot access the information (due to poor internet speed, etc.). As discussed earlier in this paper, farmers desire a clear return on investment (ROI) before making significant changes to their practices or investments in new technology. And, even with a clear ROI, some farmers are resistant to change and venturing into unknown territory where they may not have the confidence to succeed.

The US Smith-Lever Act of 1914 (7 U.S.C. §§341 et. seq.) established the Agricultural Cooperative Extension System (CES), or simply "extension", to deliver research-based knowledge to farmers, ranchers, and the non-university public nationwide[33]. Extension operates through a three-tiered system – federal oversight by the USDA, state-level activities led by land-grant institutions (LGIs), and local implementation by extension agents – and includes over 100 programs affiliated with LGIs.

The US government provides annual appropriations to LGIs, often with matching non-federal requirements. Extension programs are funded through capacity and competitive grants. Capacity grants provide federal funding to LGIs for the activities of all three pillars of the land-grant university system (teaching, research, and extension), and funding is distributed according to formulas established by legislation, including the Smith-Lever Act of 1914 (38 Stat. 372) and the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (P.L. 95-113, §§1444-1445)[34]. Competitive grants are awarded through a peer-review process to specific extension projects proposed by eligible applicants.

Between FY2017 and FY2024, federal appropriations for extension activities increased, in current-year dollars, from $477.4 million to $561.7 million. Adjusted for inflation, however, the total decreased from $582.8 million to $561.7 million over the same period. Inflation-adjusted appropriations for capacity grants decreased from $509.8 million in FY2017 to $471 million in FY2024, while competitive grants increased, from $62.7 million to $83.1 million.

In Canada, provincial and territorial governments traditionally provided extension services to farmers. Over the past three decades, there has been a notable reduction in governmental agricultural extension services in Canada's largest provinces, especially with respect to farm business management extension. Today, the vast majority of provincial and territorial departments focusing on farm business management have been dismantled or severely downsized. This has prompted a shift towards increased reliance on private consultants and non-profit organizations.

The US maintains a more centralized and substantial federal funding model for agricultural extension services, characterized by direct support for extension activities nationwide. In contrast, in Canada federal contributions are primarily channelled through broader programs like AgriCompetitiveness and AgriScience that may or may not include extension-related components. This structural difference reflects each country's approach to agricultural support and the division of responsibilities between federal and regional governments and other sector players.

In order to remain competitive and focused on proactive risk management, the federal, provincial and territorial governments should work with industry to examine creating a Canadian version of the extension system in the US.

Infrastructure as Proactive Risk Management

Productivity can also be improved through infrastructure like roads, access to rail, high-speed internet, storage facilities, and water management systems by facilitating access to information, efficient production, processing, and distribution of products.

Infrastructure helps prevent, mitigate, and manage risks associated with access to information, access to markets, and operational challenges associated with weather including storage and distribution systems.

[33] Legal Information Institute. (n.d.). 7 U.S. Code § 341 - Congressional declaration of purpose; use of existing organizations; cooperation of Federal agencies. Cornell Law School.

[34] U.S. Congress. Agricultural Marketing Act of 1946 (Compilation of Public Law 79-733, as amended through Public Law 114-54, enacted September 24, 2015). U.S. Government Publishing Office. 2016.

Here are a few examples of how infrastructure supports productivity and likewise proactive risk management:

Improved Access to Markets: Well-maintained roads and efficient transportation networks allow farmers to transport products to market more quickly and cost-effectively, capitalizing on productivity, reducing spoilage and increasing profitability.

Enhanced Storage and Preservation: Storage facilities, such as silos, cold storage, machinery storage, waste and water storage help prevent losses due to spoilage and weather conditions, allowing farmers to store harvests for later sale when prices are higher, machinery to protect from environmental risk, waste for environmental protection and safety, and water for crops and livestock.

Farm Buildings: Barn design can help increase animal comfort and welfare and worker comfort, improving productivity while mitigating the risk of disease transmission among animals.

Energy Access: Energy infrastructure for solar, biogas and grid access ensures power supply for critical farming operations, reducing downtime caused by energy fluctuations.

Reliable Irrigation Systems: Irrigation infrastructure, like canals and pumps, ensures a consistent water supply for crops and livestock, even during dry periods, which is crucial for stable yields and livestock health and welfare.

Reduced Transportation Costs: Efficient infrastructure reduces transportation costs for inputs (fertilizers, seeds) and outputs (crops and livestock), lowering the overall cost of production for farmers.

Increased Efficiency in Processing: Facilities, such as processing and packing plants, enable farmers to add value to their crops before they reach the market, increasing profits.

Adoption of New Technologies: Improved infrastructure can also facilitate the adoption of new agricultural technologies and practices, as it allows for access to information such as real-time sensor and data monitoring and training.

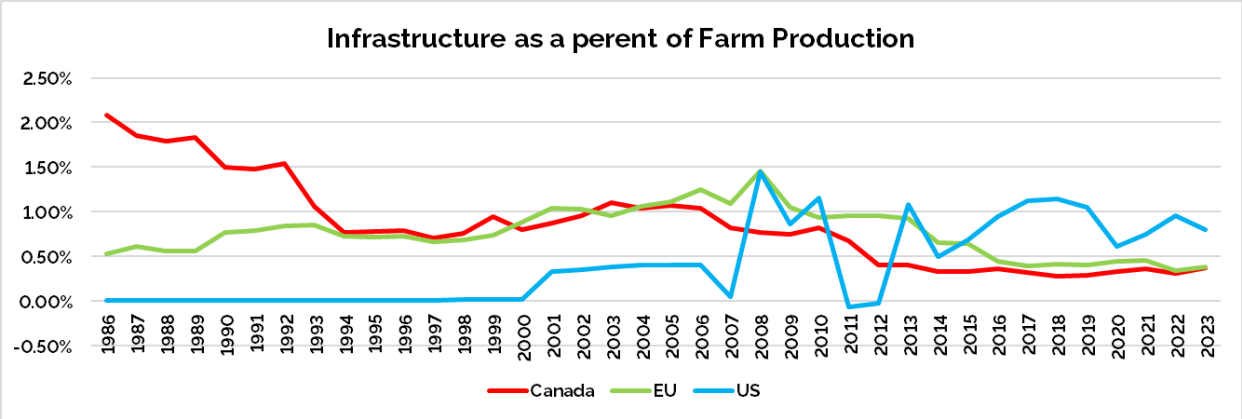
Specialization: Infrastructure improvements can encourage specialization in production, allowing farmers to focus on products and services that are best suited to their region and market opportunities.

Investment in strong agricultural infrastructure creates a more resilient farming sector, allowing farmers to reduce vulnerabilities and adapt to challenges before they become crises.

The graph below outlines OECD data on total government expenditure (at all levels) on infrastructure repair and development[35]. The difference between Canada and its two price-setting free trade partners is stark. The EU has made a relatively steady investment in infrastructure compared to the dramatic decline seen in Canada, while the US has increased investment.

[35] Organisation for Economic Co-operation and Development. (n.d.). General Support Services Estimate. Retrieved from https://www.oecd.org/en/topics/policy-issues/agricultural-policy-monitoring.html#country-data

Figure 10: Infrastructure as a percent of Farm Production: Canada vs US vs EU



While Canada is currently on pace with the EU, as a price-taker in a northern climate with vast distances to domestic and international markets, an increased emphasis on infrastructure public funding is crucial to manage trade and climate risks facing the agriculture sector.

A key example is that Eastern Canada relies on the US and formerly Russia for nitrogen fertilizer imports while Western Canada is a net exporter of these same products. This situation is largely due to the lack of transportation infrastructure within Canada to move fertilizer from West to East. Similarly, the port of Vancouver has dramatically increased oil exports due to the improved access offered by the Transmountain pipeline. However, due to capacity limitations, this has delayed agricultural exports. In both of these examples, the demand for improved and expanded infrastructure for agriculture is clear.

Marketing as Proactive Risk Management

Productivity gains can also contribute to proactive risk management through improved marketing, helping farmers anticipate, manage, and mitigate market-related risks such as price volatility, consumer demand shifts, and competition to increase profitability, reduce uncertainty, and enhance business resilience.

Marketing assistance programs enable farmers to access better markets, receive fair prices, and optimize their supply chains:

Access to Markets: Marketing assistance programs such as local food promotion or export market development can help farmers overcome market barriers, allowing them to reach wider consumer bases and potentially higher-paying markets, whether domestically or internationally.

Supply Chain Efficiency: Effective marketing channels ensure that agricultural products are transported, stored, and processed efficiently, minimizing waste and maximizing the value of the harvest.

Market-Responsive Pricing Strategies: Government-supported marketing initiatives (e.g., supply management programs in dairy, poultry, trade agreements and tariffs) can provide financial protection by helping avoid oversupply and adjusting prices based on demand, input costs, and competition.

Marketing Tools & Strategies: Access to information and training about the use of marketing tools like forward contracts enable producers to better use these complex tools, which can allow them to lock in prices (both for purchases and sales) thereby enabling them to mitigate the risk linked to price fluctuations and protect their bottom line.

Fair Prices: By connecting producers with wholesalers and consumers and facilitating fair competition, marketing assistance can help ensure that farmers receive fair prices for their produce,

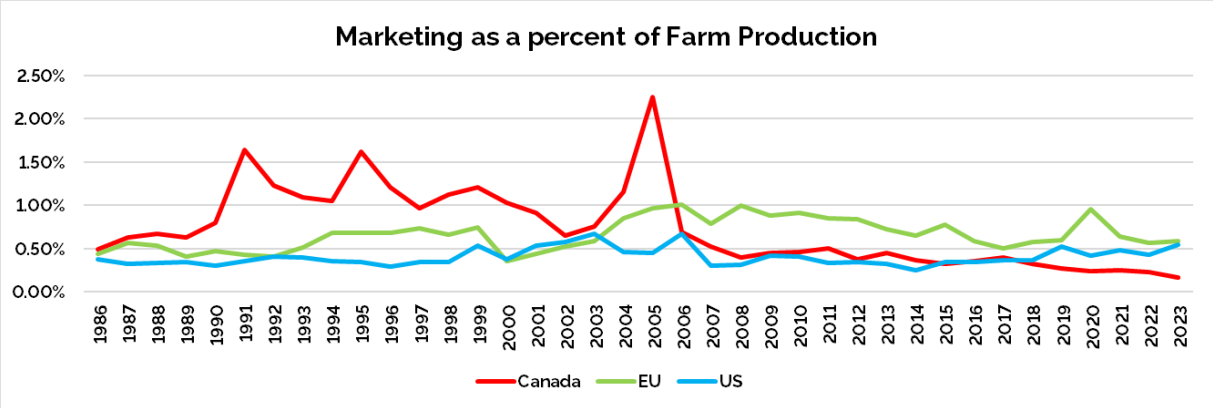
Proactive vs reactive risk management

supporting their livelihoods and encouraging continued investment in agriculture.

Public Trust: Communication about farming practices (e.g., sustainability, food safety, animal care) to help maintain consumer trust and promote Canadian products.

The graph below (Figure 11) outlines OECD data on total government expenditure (at all levels) on marketing assistance for domestic and export sales[36]. While not a large percent of total production, the US and EU in nominal terms have been continuing to make a relatively steady investment in infrastructure at least compared to the dramatic decline seen in Canada, especially in recent years.

Figure 11: Marketing as a percent of Farm Production: Canada vs US vs EU



Canada is falling behind the US and EU. As a small exporting, price-taker in a northern climate with vast distances to domestic and international markets, an increased emphasis on government, industry and farm funded marketing is crucial to manage market risks facing the agriculture sector.

For example, Export Development Canada (EDC) is committing more resources to agri-food. To get there, EDC teams and experts are working with agricultural sector partners to focus on international customer needs. The agriculture and agri-food sector could make up as much as 27% of Canada's trade gap, which explains why this industry is an enterprise-wide priority in EDC's 2030 strategy to grow Canadian exports[37].

Consumer Support as Proactive Risk Management

A key part of marketing is the consumer. Given the basic need for food and other agricultural products, and the financial challenges faced by many in affording nutritious food, consumer support can improve society and drive demand for agricultural production, both globally, and domestically. Improving market demand directly benefits farmers and can drive productivity gains that foster proactive risk management at the farm level.

The graph below outlines OECD data on total government expenditure (at all levels) on consumer support[38]. The US have been continuing to make an increasing investment in consumer supports compared to the decline seen in Canada. Meanwhile,

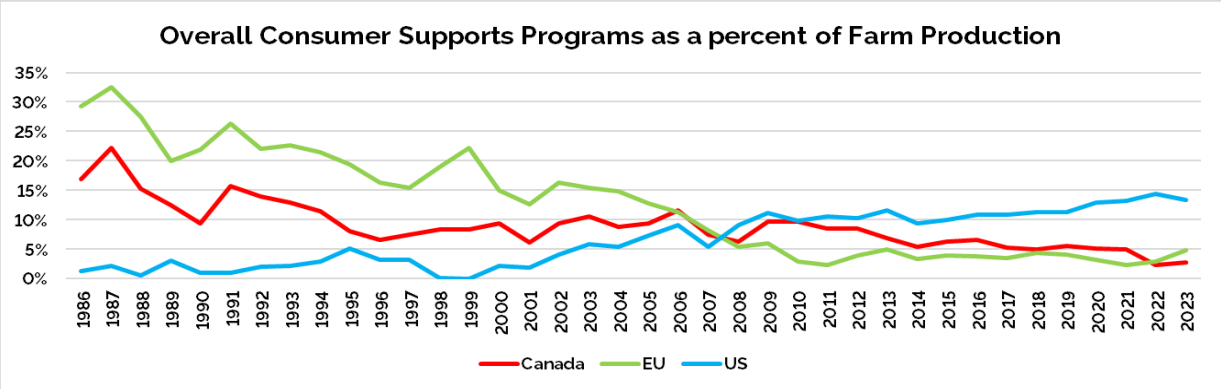
[36] Organisation for Economic Co-operation and Development. (n.d.). General Support Services Estimate. Retrieved from https://www.oecd.org/en/topics/policy-issues/agricultural-policy-monitoring.html#country-data

[37] Redding, S. Export tips and trends for Canada's agriculture and food industry. Export Development Canada. 2023. Retrieved from https://www.edc.ca/en/article/export-tips-trends-canadian-agriculture-food.html

[38] Organisation for Economic Co-operation and Development. (n.d.). General Support Services Estimate. Retrieved from https://www.oecd.org/en/topics/policy-issues/agricultural-policy-monitoring.html#country-data

both the EU and Canada have seen a steady decline, with a recent bump in expenditures in the EU.

Figure 12: Overall Consumer Supports Programs as a percent of Farm Production: Canada vs US vs EU



The largest portion (over 70%) of the US Farm Bill is on the Supplementation Nutrition Assistance Program (SNAP). SNAP provides funds for low-income households to buy nutritious foods such as breads and cereals, fruits and vegetables, meat and fish, and dairy products. In 2023, an average of 42.1 million people in the US (15% of the population) received SNAP, totalling $115 billion. According to the USDA, SNAP makes up 63% of household food spending for participants. SNAP accounts for about 12% of total in-store food purchases in the US. By helping low-income households access adequate food, the demand for US agricultural products is improved, adding significant resiliency to the sector.

In addition to SNAP, the US has significant school breakfast and lunch programs that through institutional buying offer free and low-cost food to children. As part of the programs, institutions are required to largely buy US agricultural production. Here again, greatly increasing the demand for US products and offering even more significant benefits to US farmers. In 2023, over 28.1 million children received the school lunch program every day at a cost of $17.2 billion. In 2023, over 14.3 million children received the school breakfast program every day at a cost of $5.2 billion.

Canada has recently introduced a school lunch program that is being supported by some provinces. This lunch program could easily mimic the US programs and have a “buy Canadian” provision to boost demand for Canadian agricultural products, displacing imports and added significant resiliency to the sector. This “buy Canadian” provision could be extended to other institutions such as government departments, hospitals, universities and colleges. Many provinces have buy-local initiatives within current legislation already, which would support such legislation.

New Opportunities for Risk Management

Prior to 2019, AAFC held an annual National Risk Management Forum to showcase the projects funded under AgriRisk and stimulate discussion and collaboration across the sector. Since 2019, Farm Management Canada started hosting the Forum, inviting key industry players including farmers to engage in dialogue and establish a path forward to make meaningful progress in building on-farm resilience and the capacity to seize new opportunities within the context of current, emergent and potential risks to the sector. Key recommendations emerging from the Forums have included applying a comprehensive risk management framework that reconciles the interplay between risks and management options, investing in farm financial literacy and risk management training (including a review of post-secondary curriculum and extension services), ensuring accurate cost of production, benchmarking and other financial data is available to farmers, encouraging government and industry to prioritize, invest in and incentivize proactive risk management, continued support for farmer mental health services, and ensuring government policy and programming (including sustainability) appropriately supports

Proactive vs reactive risk management

proactive and reactive risk management components.

While there is a wealth of information, resources and tools available to support risk management, there are material gaps in knowledge about these resources, their adoption, and success in supporting risk management. There is a lack of understanding and support for proactive risk management, and much confusion regarding the role of BRM programs in supporting risk management. A need for greater clarity, coordination and collaboration between government and industry has been identified, proposing the creation of a national risk management and education task force to review current risk management efforts and their success and create a national strategy to advance risk management in agriculture to advance and capitalize on both proactive and reactive risk management,

Against this background, new opportunities for advancing risk management efforts to support Canada's agricultural sector have emerged:

- National Farm Income Data Harmonization
- National Farm Risk Management Grant Program

National Farm Income Data Harmonization

The standardization and harmonization of farm data has been a challenge for the sector, particularly around financial data, which if gathered correctly, could become a powerful tool to help design government programs tailored to Canada's diverse farm types. Farm groups and industry have been calling on Agriculture and Agri-Food Canada to improve the delivery and efficiency of BRM programs to help farmers manage risk[39]. A number of initiatives including AAFC's National Program Advisory Committee and the Canadian Federation of Agriculture's BRM Review Committee have been looking at ways to improve BRM programs, but to do so, they must have access to sound data that can be analyzed and compared.

Farm Management Canada has proposed an innovative national data harmonization project (NDHP) for Canadian agriculture that would revolutionize farm income data access and analysis to significantly improve both proactive and reactive risk management for Canadian farmers, industry and government.

The central aspect of the NDHP is to have all Canadian annual farm income and expense data in one common database. As part of the current system used for BRM programs, a partial database exists now, but it is limited to BRM program participants (estimated at approximately 30% of farmers) and does not include the data for large groups of farms in specific sectors and regions. The remedy for this current limitation is relatively simple to address: a single set of commodity codes used in tax filing for all farms in Canada whether the farm is incorporated or not. This would offer equal granularity for all farm data which currently does not exist. For example, current data is limited to fruit farms; analysis for apple farms specifically is not possible. Similarly, in the current system, farms that do not participate in BRM programs are not in the overall dataset thus limiting the ability to use that data effectively for analysis, program development, and delivery.

A single Canadian farm income and expense database offers significant potential to improve proactive and reactive risk management for Canadian farms. The NDHP has the potential to improve productivity, business and financial management, and BRM coverage.

The following provides an overview of the potential benefits to proactive and reactive risk management offered by the NDHP.

Detailed Cost of Production Data

Cost of production data for most products or commodities in Canada is very difficult to find both for existing and new farms. The NDHP would create a single database for all farms, while protecting anonymity through the use of aggregated data that combines large groups of producers, thereby avoiding any farm being singled out.

This would allow for the creation of specific cost of production data that can be developed for specific sectors or groups at the national, provincial or even regional level. In many

[39] Canadian Agri-Food Policy Institute. Review, Restrain, Reset. March 2025.

cases, this data can also be produced based on farm size to reflect differences in scale of production. Essentially, the dataset would act as an annual Census representing all farms, with no need to submit additional information beyond farm income tax statements.

Individualized Annual Farm Management Benchmark Report

Coming directly from the farm income tax statement, this data would also enable a direct comparison for each farm's own individual performance. Access to cost of production data is crucial for new and existing farmers to develop business plans, benchmark farm performance, identify areas for improvements, and plan new enterprises, helping farmers proactively manage their farm and the risks they face. In the process, farms can improve their productivity, financial performance, competitiveness, and resiliency.

An annual individualized farm income benchmarking report similar to Ontario's Towards Increased Profit (TIP) report could be made available electronically to each farm in Canada through the NDHP.

Improved Farm Level Impact Forecasting

Agriculture & Agri-Food Canada, Statistics Canada, and participating provinces would no longer have to do economic modelling to account for farms not participating in BRM programs. This significantly increases the accuracy and timeliness of data and analysis including forecasting while at the same time reducing program administration costs.

BRM Program Predictability, Timeliness and Response

A single Canadian farm income and expense database with improved sector and farm-level details would make the BRM suite including AgriStability and AgriRecovery program implementation much easier.

In the case of program activation, a single database would mean that each potentially affected farm anywhere in Canada could be examined for compensation. This would reduce resource requirements and increase the accuracy and timeliness of analysis and response.

To speed up program verification, individual farmers and program delivery agents could be offered training and accreditation for the completion of accrual financial statements as is done in Quebec. This would be funded by the FPT governments and some of the costs could be recouped through reduced administration costs for verification over time. This accreditation could be used in lieu of further verification for many applications, reducing processing times and costs and improving farm financial literacy.

The NDHP and its single farm income database for all Canadian farms would mean that all farms could automatically receive notices for BRM payments. This would reduce application costs, timelines and increase program participation to support farm financial risk management and planning.

National Farm Risk Management Grant Program

While government support programs are essential to mitigate the impact of risk on farms, complementary programs to proactively reduce risk and build on-farm resilience in facing new and emerging risks are essential to ensure a viable agricultural sector. Current government support programs are largely reactive, helping farmers cope with the fallout from weather events, market fluctuations and trade policy. What is missing is a concerted effort and programming to help farmers become more proactive, by planning ahead and developing the skills and practices to build their capacity to face future challenges with confidence and certainty.

Direct financial incentives are often needed to encourage the adoption of specific behaviours and practices because there is usually a cost associated with implementation and the return on investment back to the farmer is typically long-term (not immediate) and may therefore be unclear initially.

Of course, incentives are not just limited to direct financial incentives; they can also include opportunities for education, networking, and advisory services. However, financial incentives are

the most common approach to encouraging the adoption and implementation of new practices.

Certain programs including the Canada Job Grant and the Canada Digital Adoption Program (CDAP) are using this approach to incentivize skills development and planning (including agriculture), but they fail to address the specific need for strategic risk mitigation in agriculture.

A similar program, specifically geared towards proactive risk management on farms would provide an incentive for farms to focus on reducing risk and even avoiding certain risks before they happen rather than solely relying on programs designed to assist farmers after they have experienced losses. The same way that the CDAP helps businesses create tailored plans for the implementation of digital solutions and then guides participants to an interest free loan program for the implementation of those plans, the proposed program would help producers access skills development opportunities and advisory services to create tailored plans for the implementation of proactive risk management solutions and then guide participants to other support programs, such as the Advance Payments Program, for their implementation.

With this in mind, Agriculture and Agri-Food Canada could better support proactive risk management and resiliency for the sector through a new national grant program for risk management skills development and advisory services.

Funded by Agriculture and Agri-Food Canada, the program would guide farmers through a thorough risk assessment process that would culminate in receiving funds to address key risk areas that are specific to each individual farm and range from receiving expert advice in order to build a business plan or a transition plan, to hiring a coach to help with communications and family relations, receiving training on financial literacy and marketing tools, and/or receiving expert advice on accessing and using insurance and government BRM programs. Only professional advisory services, training, workshops, learning events or business management tools and resources would be eligible for a grant under this program, up to a maximum amount of $10,000 per farm over the duration of the Sustainable CAP program. The purchase of farm machinery or other capital costs would be ineligible under this grant program.

Through the collection of aggregated data to protect participant privacy, the project would also serve to establish national benchmarks using baseline data to identify opportunities for policy and program improvements to meet the risk management needs of farmers in Canada. This data can be analyzed through multiple variables, including by type of commodity produced, geographical area, age group, gender, farm type, farm size, farm revenue, and/or ethnicity.

Recommendations

To build a more resilient and competitive sector, Canada needs a modernized and coordinated approach to risk management that goes beyond crisis response. The following recommendations present a comprehensive roadmap for strengthening agricultural risk management across the country. The recommendations emphasize the importance of balancing proactive and reactive strategies, aligning policy and program development nationally, investing in education and research, and creating the conditions for farmers to succeed through data access and analysis, collaboration, and innovation. Together, these actions lay the foundation for a more resilient and prosperous future for Canadian agriculture.

While some of these recommendations require financial support, others simply require effort. In any case, in order to be successful, they all require sustained, nationally-led and coordinated support.

Create a Risk Management-Focused Policy Lens and Framework

1. Develop a comprehensive risk management assessment and planning framework that clearly articulates objectives for a national risk management strategy, addressing proactive and reactive approaches, along with key performance indicators and measures to assess the current approach and alternatives.

2. Prioritize risk management as a core pillar of the agricultural policy framework to ensure governments at all levels provide farmers across Canada with equitable access to risk management programming, including but not limited to skills development and advisory service support.

3. Increase the engagement of farmers, risk management experts and other external players in policy and program development to ensure practical and effective solutions and impact.

Create a National Risk Management Task Force

4. Establish a National Risk Management Task Force of industry and government experts to lead the implementation of these recommendations, continue to identify current and emerging risks and recommend policy and program improvements, including education and training initiatives.

5. Examine establishing an annual National Farm Risk Management Report to measure and report on risk concerns, management strategies and identify areas for support through policy and programs including education and training opportunities to increase risk planning and mitigation.

Create a National Farm Risk Management Capacity Building Strategy

6. Continue to support the creation of a National Farm Risk Management Communication and Education Strategy to promote a comprehensive risk management framework, proactive and reactive risk management and benefits, and risk management tools and resources available and how to maximize their use, including the BRM programs.

7. Conduct a comprehensive review of risk management extension programming in Canada, including the possibility of adopting and/or adapting the US extension model in Canada.

Create a National Farm Risk Management Research Network

8. Establish a National Farm Risk Management Research Network to share work underway and enhance research capacity, coordination and collaboration.

9. Conduct a comprehensive review of farm risk management research underway, identifying gaps and opportunities. Include research on behavioural psychology to understand farmer motivation towards proactive risk management.

Increase Proactive Risk Management Incentives

10. Incentivize comprehensive risk assessment and planning through grants, tax credits and improved access to risk management programs.

Proactive vs reactive risk management

11. Reassign a percentage of government funding that is currently allocated to the BRM suite of programs by re-examining and possibly eliminating AgriInvest, which in reality, has minimal impact on supporting risk management.

12. Ensure environmental cross compliance does not impact the effectiveness of risk management programs as risk management tools. Explore alternative incentives, including partnerships with lenders and insurers.

Harmonize National Farm Income Data

13. Accelerate the National Farm Income Data Harmonization project to create a national farm income database to support and improve cost of production analysis, benchmarking, and risk management program efficiency and effectiveness.

14. Establish an accreditation program for preparers of farm income tax reporting to ensure consistency and reduce verification costs for BRM programs.

Concluding Remarks

While both proactive and reactive approaches are essential components of effective farm risk management, the long-term resilience and prosperity of Canadian agriculture depend on shifting the balance toward proactive strategies.

By applying a risk management lens to the agricultural policy framework, creating a national risk management framework, and equipping farmers with the tools, education, support, and incentives to anticipate and plan for risk, Canada can reduce reliance on reactive, crisis-driven responses and create a more adaptable and competitive sector.

The recommendations outlined above reflect a forward-thinking, nationally coordinated approach that integrates policy, programming, research, and industry engagement. Prioritizing proactive risk management is not only a smart investment – it is a necessary evolution to ensure the continued strength and success of Canada's agricultural sector in the face of an ever-evolving and increasingly complex business environment.