

**July 2022** 





The Canadian Agri-Food Policy Institute 960 Carling Avenue, CEF Building 60 Ottawa, ON K1A 0C6 www.capi-icpa.ca

The Canadian Agri-Food Policy Institute was commissioned by the Grain Farmers of Ontario to prepare this report. To ensure the validity and quality of its work, CAPI requires all Quick Think Reports to go through a peer review process. CAPI thanks the peer reviewers for their comments on an earlier draft of this report. The views and opinions expressed in this paper are solely those of the authors.

# **Table of Contents**

Note from CAPI	2
Key Takeaways	2
1.0 Introduction.	3
Purpose and Objectives.	3
2.0 Business Risk Management Programming	3
Overview of BRM Programs	3
Environmental Impact of BRM programs	5
3.0 Outcomes/Impact of Cross-compliance	5
Effectiveness	5
Efficiency	6
Moral hazard	6
Variable Nature of BMPs	7
4.0 Administration and Delivery	7
Delivery	7
Administration	7
Insurance and Actuarial Soundness	8
5.0 Assessing Cross-compliance of BRM Programs with Agri-environmental BMPs	8
Participation Rates	8
Loss-driven programs	9
Moral Hazard	9
AgriInvest	9
Administrative Burden	9
Actuarial Soundness	9
6.0 Conclusion	10
References	11

## **Note from CAPI**

The Canadian Agri-Food Policy Institute was commissioned by the Grain Farmers of Ontario to prepare a report on considerations with cross-compliance within business risk management programs in Canada. This report builds on past research CAPI has done on the topic, including a report on Clean Growth in Agriculture and Business Risk Management Programs and the Environment.

The need to continue agriculture's continuous progress in improving environmental outcomes is clear. This paper offers considerations on whether cross-compliance should be used to leverage risk management programming to improve environment outcomes.

## **Key Takeaways**

## **Key Observations:**

- Farmers are facing increased volatility and risk and the BRM suite includes tools to manage this risk.
- BRM programs in Canada have negligible environmental impact.
- Pursuing multiple program objectives with a single set of programs increases the risks that the programs will not deliver on either outcome effectively and increases the government's vulnerability to provide *ad hoc* supports.
- There are significant challenges with cross-compliance, including effectiveness, increasing moral hazard, administrative burden and its impact on actuarial soundness.
- Targeted environmental programs, possibly leveraging the Environmental Farm Plan, will likely deliver better, more efficient and effective environmental outcomes.
- There is a need for a deeper dialogue on how to improve effectiveness, responsiveness, and innovation of risk management tools in Canada.



#### 1.0 Introduction

Business Risk Management (BRM) programs refer to the suite of programs delivered by government. They are also the largest envelope of funding for agriculture and food.

With increased focus on improving environmental outcomes on Canadian farmers, there has been a desire to leverage the BRM funding envelope to encourage the adoption of more sustainable farming practices. During negotiations on the 2023-2028 Federal-Provincial-Territorial (FPT) there has been significant focus on how to use implement greater cross-compliance with environmental improvements within the BRM suite of programs.

There has been some study of the potential benefits of cross-compliance, however there are issues including efficacy, efficiency and unintended consequences that must be also be considered.

## **Purpose and Objectives**

The purpose of this paper is to characterize and assess the prospects for cross-compliance of BRM programming with agri-environmental beneficial management practices (BMPs) as a means of increasing their adoption. The objectives are:

- To provide a high-level overview of the operations and mechanisms of operation of BRM and agri-environmental programming in Canada.
- To identify, discuss, and evaluate economic concepts on incentives and crosscompliance.
- To provide an assessment of cross compliance as an approach to increasing environmental BMP adoption rates.

## 2.0 Business Risk Management Programming

## **Overview of BRM Programs**

Governments offer four BRM programs to farmers: AgriInvest, AgriStability, AgriInsurance, and AgriRecovery. These programs are jointly funded by federal and provincial/territorial governments on a 60:40 share basis. Farmers also pay significant premiums to participate in the programs- a 40 percent share of total AgriInsurance premiums, and deposit requirements under AgriStability and AgriInvest. The authority for these programs at the federal level is contained within the *Farm Income Protection Act*; at the provincial/territorial level the authority derives mainly from legislation establishing crop insurance.



AgriInvest	Producers can deposit up to 1% of their allowable sales into a savings account and receive a matching government deposit up to \$10,000 a year. Farmers can use the funds in their AgriInvest accounts to cover small margin declines or reduce risk.
AgriStability	A whole-farm, margin-based program which triggers payments when a producer's production margin declines more than 30% from an Olympic average reference margin. Payments are 70% of the margin above the 30% loss trigger.
AgriInsurance	Often referred to as crop insurance, it is a production insurance program where governments pay 60% of the annual premium and producers pay 40%. It provides insurance for crops that experience a loss in yield, whether it is due to an insurable cause of loss in the quality or quantity of the insured crop.
AgriRecovery	A framework for establishing programs when a defined group (example, region or commodity) has suffered severe losses. The framework is initiated by provinces and is intended to cover the extraordinary costs producers must take on to recover from disasters.

These programs represent the national suite and are consistent across the country. However, many provinces offer either companion programs (ASRA in Quebec and RMP in Ontario) or top-ups to the FPT suite (PEI decreased the AgriStability trigger to a 15% margin decline and increased the payment rate to 80%).

The objective of the suite of programs according to Agriculture and Agri-Food Canada is to "provide agricultural producers with protection against income and production losses, helping them manage risks that threaten the viability of their farms" (Agriculture and Agri-Food Canada, 2022).

There have been longstanding concerns raised about how effective the existing suite of BRM programs is at achieving this objective. Declining participation in AgriStability can be a proxy for how effective some producers see the program as a tool to manage risk.

The recent focus has been on how to "green" BRM programs, has avoided a fulsome dialogue between government and producers on the purpose or intent of BRM programs and the effectiveness of the existing suite on delivering on that intent. The intent of this paper is not to consider the objective of intent of BRM programs, but it is an important question that warrants further consideration.



## **Environmental Impact of BRM programs**

A 2018 CAPI <u>Research Report</u> considered the environmental impact of BRM programs. The report's author James Rude concluded:

Cumulatively over time agriculture production has had a profound impact on the environment. However, the incremental negative impact of the current set of BRM programs is probably relatively minor. By design the programs are not commodity specific and are applied on a net basis to revenues and costs, so the programs do not provide significant direct incentives to produce more. None of the current suite of programs induces marginal and sensitive land into production. The only conduit to encourage production is through intensification. AgriStability creates modest incentives to use more fertilizer and pesticides; while AgriInsurance may encourage production of more risky crops. In both cases the incentives are modest at best

## 3.0 Outcomes/Impact of Cross-compliance

The notion of *incentive* in policy and program design is that desired behaviour can be motivated or enhanced by tying into self-interest through a reward or penalty. For example, while it is in everyone's interest to save for their retirement, by adding a tax deferral for contribution to registered retirement savings plans, it strengthens the immediate self-interest in doing so and increases the incentive to save for the future. In order to get the benefit of tax relief, an individual must save for retirement.

Rude and Weersink (2018) defined cross compliance in an agri-environmental context as "any measure that makes eligibility for the receipt of a non-environmental program benefit conditional on meeting a specific environmental requirement." In the context of BRM cross-compliance, to get the benefits of BRM programming, governments may require that a farmer adopt agrienvironmental BMPs, implement an Environmental Farm Plan, or offer improved benefits to producers who adopt certain practices. This would be in addition to the premiums or deposits paid by farmers.

The ability for cross-compliance to achieve desired outcomes depends on a number of factors.

## **Effectiveness**

First, to motivate participation, the expected benefits of accessing BRM programs must exceed the costs of undertaking the environmental cross compliance measures; if this condition is not satisfied, then farmers will not participate in the BRM program. If there is not an appropriate balance between the cost of cross-compliance and the potential benefits of the BRM program,



Challenges with Cross Compliance and Agricultural Business Risk Management Programming in Canada

farmers may opt out of the BRM suite, and lose access to government risk management funding, resulting in ineffective government programs.

Second, the nature of BRM benefits, which are different with each program, are relevant. AgriInvest payments are a *de facto* entitlement and require no loss. However, both AgriStability and AgriInsurance payments are demand driven, with payments tied to losses incurred by producers. While producers may be able to assess the cost-benefit of cross-compliance under AgriInvest, it is more difficult to assess with demand-driven programs.

Therefore, producers must evaluate the perceived value of BRM programs as a risk management tool, the expected payments from BRM programs, and the cost of cross compliance. Low-cost and less meaningful environmental BMPs may not discourage producers from participating in BRM programs, but they will also likely offer little environmental benefit. More significant and costly BMP requirements could pose a significant barrier, leading producers to abandon BRM programs, and to the loss of risk management tools, with no additional BMP adoption.

## **Efficiency**

Previous work has assessed the prospect for cross-compliance of BRM programming with agrienvironmental BMPs in Canada. Schmidt *et al* (2012) observed that "the incentive effect of cross-compliance in a contingency-based program must be less than under an entitlement program". They suggested that AgriInvest would perhaps be a better choice for agrienvironmental cross-compliance.

Rude and Weersink (2018) considered cross-compliance of AgriInvest with agri-environmental BMPs. They found that the leverage that regulators have on producers in adopting agri-environmental BMPs was determined by the size of the AgriInvest payment, and not by the value of the environmental benefit. For the agri-environmental BMPs observed, they found that the costs of BMP adoption were likely to exceed the AgriInvest government contributions of up to 1 percent of allowable sales, making cross-compliance unattractive to many producers. The nature of AgriInvest also limits the ability to target specific BMPs, either according to farm type/region, or the nature of priority environmental measures. They concluded that there are bound to be tradeoffs between agricultural income and environmental objectives under cross-compliance.

This is consistent with Tinbergen's Rule: that the number of policy instruments should equal the number of policy goals. If the policy goal is to improve environmental outcomes, a targeted environmental program will likely deliver more effective and efficient results.

## Moral hazard

Under a demand-driven program, like AgriStability, when producers only receive a benefit when they incur a loss, with cross-compliance condition a producer may perceive the incentive to



purposely incur a loss in order to trigger a payment to attempt to cover the cost of cross compliance. This effect is called moral hazard, and it is a known problem in individual claim-based programming (such as crop insurance), with program design and administration of AgriInsurance and AgriStability developed accordingly to mitigate it. However, if some participants in BRM programs perceive it as in their interest to trigger BRM payment to cover the costs cross compliance, it could greatly complicate issues of moral hazard.

#### Variable Nature of BMPs

Moreover, the anticipated benefits of the BMPs in terms of reducing the risks addressed in BRM programming are likely to accrue only in the long-term, with this evidence not yet observed. BMPs also range in terms of the nature of adoption, with some BMPs a one-time adoption event and others entailing a repeated or ongoing commitment. It is generally easier to adopt a one-time BMP (for example, an Environmental Farm Plan) than it is to commit to an ongoing BMP, and the verification that the one-time BMP has been adopted is much easier.

## 4.0 Administration and Delivery

## **Delivery**

Administration across programs is varied, with cost and burden to government and producers

varying widely. AgriInvest, delivered by AAFC, is a relatively low burden for governments and producers, but is accompanied with a smaller financial benefit to producers. AgriStability, delivered by a mix of provincial governments and AAFC, has a relatively high burden on both government and producers, but with a low benefit to most producers. AgriInsurance, delivered solely by provincial governments, has a higher administrative burden to governments and a moderate burden for producers, but with a significant return.

The different approaches to program delivery, including differences across provinces, may also result in differential costs, standards, and burden across for both governments and producers across Canada.

#### Administration

Regardless of the program, cross-compliance will inherently increase the administrative burden for both producers and governments. There will likely be different methods deployed across provinces, but some verification of cross-compliance will likely be required.

Existing government budgets will likely not be sufficient for governments to manage these additional requirements. It is not clear whether governments intend to provide additional funding for monitoring and verification or if funds will be reallocated from existing programs.



Additional administrative burden as a result of cross-compliance may impact the ability of BRM programs to deliver on risk management objectives and affect environmental outcomes. In effect, the additional administrative costs of administration under cross-compliance eats into the funds available to do actual on-the-ground improvements.

## **Insurance and Actuarial Soundness**

FPT agreements require AgriInsurance to be administered through actuarial sound models and funds. There have been some suggestions that cross-compliance could be achieved by offering premium discounts or additional benefits for producers that adopt specific BMPs.

There is a risk that limiting access and/or providing premium discounts will impact the actuarial soundness of AgriInsurance. Potential consequences include increasing premiums or redistributing benefits in a manner that does not relate to the risks that are being underwritten.

A potential unintended consequence is increased adverse selection within AgriInsurance. Adverse selection occurs when an insurance pool becomes redistributed toward higher risks being covered and a higher likelihood of claims, which triggers premium increases that only exacerbate the problem as lower-risk producers less likely to claim cannot justify paying increased premiums. The producers expecting AgriInsurance payments to finance cross-compliance costs could be higher risk producers, shifting the nature of risks covered and altering premiums accordingly – and, over time, decreasing participation as the bad risks drive out the good risks. Lower participation by producers will result in higher risks to governments by increasing the potential for *ad hoc* payments.

In theory, this could be mitigated by managing separate insurance pools, one with cross-compliance and one without, each actuarially sound. However, this approach increases complexity, especially in situations where there is not enough data to support actuarial integrity of an insurance fund with cross compliance benefits. In other words, a significant proliferation of crop insurance pools is unlikely to improve business risk management, and the separation of pools would create additional administrative cost problems.

# 5.0 Assessing Cross-compliance of BRM Programs with Agri-environmental BMPs

As outlined above, there are caveats and concerns with including cross-compliance within BRM programs.

## Participation Rates

Declining participation in AgriStability already limits its effectiveness as a risk management tool and provide evidence that the government funds and program designs need to be improved.



Cross-compliance provisions will cause producers to re-evaluate the value of these programs for risk management and may result in further declines in participation rates. This exposes producers to increasing volatility and risk.

## *Loss-driven programs*

AgriStability and AgriInsurance payments are loss driven, triggered by either a margin or production loss. If loss-driven payments are expected to also offset the cost of cross-compliance then it will weaken the producers' ability to cope with the loss that triggered the payment.

#### Moral Hazard

Producers should never be incentivized to incur a loss to trigger a payment under AgriStability or AgriInsurance. However, cross compliance may encourage producers to attempt to trigger a payment to offset the cost of compliance.

## AgriInvest

AgriInvest, a program that does not require a loss to qualify for benefits, allows for a clear understanding of the tradeoff between the cost of cross compliance and the benefits of the program. However, the maximum payment of \$10,000 per year could be small relative to the costs of BMP adoption. If significant cross-compliance is required under AgriInvest it should likely no longer be considered a risk management program as its effectiveness in managing risks will be severely limited.

#### Administrative Burden

For cross-compliance to be effective, the measures need to be verified. The cost of additional compliance and verification measures, which may include on-farm visits, and additional costs may erode funding for BRM programming. Differences in administration across Canada may amplify regional inequities.

## Actuarial Soundness

Limiting participation, or altering premiums as a result of cross-compliance, could jeopardize the actuarial soundness of AgriInsurance. It may also increase the risk of adverse selection pressuring up premiums and/or decreasing participation.

Imagine a hypothetical example in which access to BRM programming is tied to a suite of agrienvironmental BMPs, some a one-time investment, others ongoing. The maximum committed funding to support BMP adoption would derive from AgriInvest, assuming a producer fully participated, at \$10,000 per farm. For many farms and for some BMPs, this would be inadequate to finance adoption, so the additional funding would need to come from AgriStability and AgriInsurance, or they would simply drop participation in BRM programs. Suppose that initially,



payments from AgriStability and AgriInsurance helped to finance BMP adoption, but after committing to multi-year adoption of ongoing BMPs, these payments declined or were no longer triggered. The cost commitment to the BMPs would continue, without the same level of funding to support it. Some producers would be unable or unwilling to continue ongoing BMPs without the support; this would place pressure on delivery agencies in verifying adoption and compliance, carrying the possibility that some would be removed from BRM programs due to lack of compliance. Others might perceive an interest to trigger claims to cover the costs of the BMPs and remain in compliance, ultimately imposing the costs of moral hazard on the system.

## 6.0 Conclusion

Canadian producers have demonstrated a long-term commitment to adopting practices that improve environmental outcomes. That commitment will need to continue and be amplified if agriculture and food wants to achieve its full potential as a climate change solutions provider and maintain the natural resource base in the agri-food sector.

Governments can play an important role in facilitating and encouraging the adoption of these practices, but how it is done is critical.

Repurposing BRM programs to improve environmental outcomes through cross-compliance may create unintended consequences, including by decreasing participation rates. Decreasing participation rates in structured BRM programs does not remove governments' interest or responsibility in BRM; rather, it shifts toward pressure for *ad hoc* programming.

This paper does not look at other program and policy approaches; however, it will likely be more efficient and effective, and deliver better environmental outcomes if governments used targeted programs, potentially leveraging Environmental Farm Plans, to increase BMP adoption. New programming should include additional funds and appropriate implementation resources.

While the recent focus on changes to BRM programs has been on cross-compliance, there remains a need for further dialogue on how to improve the effectiveness of risk management tools. Extreme volatility in input and commodity prices highlight the risks producers face and an effective suite of risk management tools are key to producers managing extraordinary risk.



## References

- Agriculture and Agri-Food Canada. (2022). "Business risk management programs." Retrieved from <a href="https://agriculture.canada.ca/en/agricultural-programs-and-services/business-risk-management-programs">https://agriculture.canada.ca/en/agricultural-programs-and-services/business-risk-management-programs</a>.
- Rude, James. (2018). Business Risk Management Programs and the Environment. [Paper prepared for Canadian Agri-Food Policy Institute (CAPI).] Retrieved from <a href="https://capiicpa.ca/wp-content/uploads/2018/09/2018-09-CAPI-BusinessRiskMgmntProgramsEnviro\_JRude-1.pdf">https://capiicpa.ca/wp-content/uploads/2018/09/2018-09-CAPI-BusinessRiskMgmntProgramsEnviro\_JRude-1.pdf</a>.
- Rude, James, and Alfons Weersink. (2018). "The Potential for Cross-Compliance in Canadian Agricultural Policy: Linking Environmental Goals with Business Risk Management Programs." Canadian Journal of Agricultural Economics / Revue canadienne d'Agroéconomie (6) 359-377.
- Schmidt, Claudia, Al Mussell, Janalee Sweetland, and Bob Seguin. (2012). *The Greening of Canadian Agriculture: Policies to Assist Farmers as Stewards of the Environment*.

  MacDonald-Laurier Institute. Retrieved from <a href="https://macdonaldlaurier.ca/mlifiles/pdf/The-Greening-of-Canadian-Agriculture-November-2012.pdf">https://macdonaldlaurier.ca/mlifiles/pdf/The-Greening-of-Canadian-Agriculture-November-2012.pdf</a>.

