Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada

REPORT:
Evaluation of the AgriInsurance, Private Sector Risk Management Partnerships and Wildlife Compensation Programs

Office of Audit and Evaluation

The AAFC Evaluation Committee recommended this evaluation report for approval by the Deputy Minister on November 14, 2012.

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EXECUTIVE SUMMARY

This evaluation examines the relevance and performance of Agriculture and Agri-Food Canada's (AAFC) AgriInsurance, Private Sector Risk Management Partnerships (PSRMP) and Wildlife Compensation Programs. As these three programs have common objectives related to business risk management and are delivered by the same division (Production Insurance & Risk Management Division) within the Programs Branch, the three programs were evaluated together. They support AAFC's Strategic Outcome of "a competitive agriculture, agri-food and agri-based products sector that proactively manages risk".

The evaluation was conducted by the Office of Audit and Evaluation (OAE) in accordance with the Treasury Board Policy, Directives and Standards on Evaluation (2009). The results will help to inform planning for the next phase of policy and program development under Growing Forward 2, the next multilateral framework agreement for Agriculture.

Background and Profile

The Business Risk Management (BRM) suite is designed to support Growing Forward strategic outcomes by providing producers with effective tools to manage business risks that are largely beyond their control, thereby helping them to reduce income losses.

Within the BRM suite, the four core programs designed to assist producers to stabilize their farm income are: AgriInsurance, AgriStability, AgriInvest and AgriRecovery. Legislated under the *Farm Income Protection Act (FIPA)*, the AgriInsurance program (formerly known as Crop/Production Insurance) has been operating since 1959. Its objective is to stabilize producers' income by minimizing the economic effects of production losses caused by natural hazards such as drought, flood, hail, frost, excessive moisture, and disease. The AgriInsurance budget totaled $2.05 billion over five years (2008/09 to 2012/13).

Governments and producers contribute to the premium costs for the AgriInsurance program and governments share the costs for administration. The program is demand-driven and is administered by provincial governments. To increase administrative efficiencies, AAFC delivered the Administration Research and Pilot Initiative Fund, which provided funding to the delivery agencies to improve administrative practices.

The Wildlife Compensation Program, a separate program from AgriInsurance, but also legislated under FIPA, compensates producers for losses caused by wildlife to prevent farmers from destroying animals that are protected by federal or provincial legislation. Producers are not required to participate in AgriInsurance to be eligible for the Wildlife Compensation Program and do not have to pay premiums or administration fees.

Finally, to support the AgriInsurance program, the federal government also developed the Private Sector Risk Management Partnerships (PSRMP) Program. The purpose of PSRMP was to provide time-limited financial and technical assistance to facilitate agricultural industry-led risk management projects.

Methodology

The evaluation gathered quantitative and qualitative data using the following lines of evidence: a document and literature review, analysis of program performance information, an analysis of program expenditures and key informant interviews.

Key Findings

Insurance markets are important to producers for managing the negative consequences of risk and uncertainty. As market determined insurance premiums would not be affordable for the majority of producers, federal support for agriculture insurance is important for helping producers manage production risks in order to promote stability in the agriculture sector.

The AgriInsurance program aligns with the historic federal role for supporting the agriculture sector and the AAFC Strategic Outcome related to business risk management. Federal and provincial and producers' roles have evolved over time with respect to premium cost sharing, but the underlying principle of a shared responsibility has been consistent.

The recent increase in prices in the grains and oilseeds sector has led to a significant increase in federal expenditures related to the AgriInsurance program. However, it appears that current government subsidy levels for AgriInsurance are incenting a high level of participation among Canadian producers.

Characteristics of the forage sector make it challenging to increase participation rates in forage related insurance plans. Further, uptake of production insurance by fresh fruit and vegetable growers appears to be low due to challenges in determining price and yield.

Overall, the AgriInsurance program is achieving its outcomes. Canada's approach for providing agricultural insurance is efficient and meets the needs of the sector.

Finally, while the Private Sector Risk Management Partnerships program was successful in identifying and developing new risk management products, there was limited take-up in terms of private sector delivery. While several plans have been implemented (through a mix of private and public delivery), participation to date has been limited.

The evaluation identifies several areas requiring attention:

- The needs of the livestock sector are not homogeneous. There is a need for FPT governments to explore alternatives outside of AgriInsurance-based programming to meet the needs of the livestock sector.

- The Wildlife Compensation Program has no clear policy rationale for the range of species covered by the program. Further, it is not aligned with the insurance principles outlined in the Canada Production Insurance Regulations.

- There are a large number of low-value claims being submitted by provincial governments. Bundling these claims may lead to further administrative efficiencies.

Recommendations

The evaluation identifies the following three recommendations:

Recommendation #1:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Continue working with the livestock sector to develop relevant insurance plans, where appropriate (e.g. hogs), but also explore and report back to senior management on the viability of alternatives outside of the AgriInsurance program.

Recommendation #2:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Review the policy rationale for the Wildlife Compensation Program, including what constitutes the definition of “eligible wildlife”;

- Assess the feasibility of incorporating the production risks related to wildlife into existing production crop insurance plans; and

- Report back to senior management with findings and recommendations.

Recommendation #3:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Assess whether bundling low value claims could increase program efficiencies; and report back to senior management on the findings.

LIST OF ACRONYMS

AAFC	Agriculture and Agri-Food Canada
ADM	Assistant Deputy Minister
AFSC	Alberta Financial Services Corporation
AIWG	AgriInsurance Working Group
APF	Agriculture Policy Framework
APP	Advance Payments Program
ARPI	Administration Research and Pilot Initiative Fund
BRM	Business Risk Management
CA	Contribution Agreement
FIPA	Farm Income Protection Act
FFPB	Farm Financial Program Branch
FPT	Federal-Provincial-Territorial
OAE	Office of Audit and Evaluation
OECD	Organization for Economic Cooperation and Development
PAA	Program Activity Architecture
PCV	Porcine Circovirus
PINSS	Production Insurance National Statistical System
PIRMD	Production Insurance and Risk Management Division
PMS	Performance Measurement Strategy
PPP	Price Pooling Program
PSRMP	Private Sector Risk Management Partnerships Program
TB	Treasury Board

1.0 INTRODUCTION

The Office of Audit and Evaluation (OAE) of Agriculture and Agri-Food Canada (AAFC) conducted an evaluation of the AgriInsurance, Private Sector Risk Management Partnerships (PSRMP) and Wildlife Compensation Programs. These programs support AAFC's Strategic Outcome of "a competitive agriculture, agri-food and agri-based products sector that proactively manages risk". This evaluation was a requirement under AAFC's Five-Year Departmental Evaluation Plan. With the Growing Forward Policy Framework[1] expiring at the end of 2012/13, the evaluation will help to inform planning for the next phase of policy and program development.

As the AgriInsurance, PSRMP and Wildlife Compensation Programs have common objectives related to business risk management and are delivered by the same division (Production Insurance & Risk Management Division) within the Programs Branch, the three programs were evaluated together.

Other BRM programs were subject to separate evaluations:

- AgriRecovery was evaluated in 2011;
- The Advance Payments Program (APP) and the Price Pooling Program (PPP) were evaluated in 2011; and
- AgriStabilty and AgriInvest were evaluated in 2012.

1.1 EVALUATION SCOPE

In accordance with the Treasury Board Directive on the Evaluation Function, the evaluation examined the programs' relevance and performance. Specifically, the evaluation examined: continued need for the programs; alignment with government priorities, departmental strategic outcomes, and federal roles and responsibilities; achievement of intended outcomes; and the extent to which the programs demonstrate efficiency and economy.

The evaluation was national in scope, covering the period from the programs' implementation in 2008/09 to 2011/12. Given its high materiality, the evaluation focused primarily on the AgriInsurance program, but also included an assessment of both the PSRMP and the Wildlife Compensation Program. As there have been three reviews of the PSRMP program to date, the evaluation concentrated on synthesizing the information from these reviews and supplementing this with updates on the PSRMP projects, and on the PSRMP program in general, as provided by program staff.[2]

[1] The Growing Forward Policy Framework lays the groundwork for coordinated federal-provincial-territorial (FPT) action over five years (2008 to 2012) to help the sector become more prosperous, competitive, and innovative.
[2] Three reviews of the PSRMP program have been completed to-date: a review conducted in April 2007 by the PSRMP program; a formal review carried out to respect the stated Treasury Board reporting requirements for the Program within three years of its introduction (December 2003); and a final review carried out by the Program in June 2012.

An evaluation of the predecessor program to AgriInsurance (Production Insurance) was completed in 2007. It found that the program was relevant and was helping producers manage the production risks associated with traditional crops, but fell short in providing acceptable insurance products for several commodities including livestock, fresh fruit and vegetables. The current evaluation of AgriInsurance, therefore, devoted particular attention to assessing whether gaps continue to remain where producers' needs are not being met by current AgriInsurance plans.

This evaluation also focused on assessing whether there is an appropriate balance between the federal government, provincial governments, and producers in terms of roles related to managing business risk. Finally, as the program has a well-established performance measurement and data collection system, the evaluation relied on the performance measures developed by the program to assess performance related to outcomes.

The following are the primary questions addressed by the evaluation:

Relevance

<u>Issue #1: Continued need for program</u>

1. Are there gaps remaining where producers' needs are not being met by current insurance plans?

<u>Issue #2: Alignment with Government Priorities</u>

2. Are program objectives aligned with federal government priorities and AAFC's strategic outcomes?

<u>Issue #3: Alignment with Federal Roles and Responsibilities</u>

3. What is the appropriate balance between federal/provincial/private sector roles in production insurance?

Performance

Issue #4: Achievement of Expected Outcomes

4. To what extent has the AgriInsurance program been effective in mitigating the financial impact of production losses?
5. To what extent have the federal government's activities been effective in increasing the range of commodities covered and increasing private sector participation in production insurance?
6. How can the AgriInsurance program be improved to better mitigate the financial impact of production losses?

Issue #5: Demonstration of Efficiency and Economy

7. To what extent has AgriInsurance demonstrated efficiency and economy in its implementation?

1.2 EVALUATION APPROACH

The evaluation used a mixed-methods, non-experimental design, incorporating multiple lines of evidence, both qualitative and quantitative, to assess the program and address evaluation issues and questions. Qualitative data was used to provide context around quantitative data.

1.3 METHODOLOGY

The evaluation included several lines of evidence.

1. Document review

A document review was completed to gain a comprehensive understanding of the programs and their forerunners, and to gather information relevant to the evaluation questions. The review examined: foundational documents to gain a solid understanding of the design and operation of the programs; reports produced by the programs to gain a sense of what the programs have accomplished; and finally, branch/departmental level reports to gain a better understanding of how the programs align with broader branch and department level objectives.

Previous reviews of the BRM suite of programs were also reviewed including: the BRM Strategic Review; an Evaluation of the Income Stability Tools (AgriStability and AgriInvest); an evaluation of AgriRecovery and a thematic review of agricultural risk management in Canada completed by the Organisation for Economic Co-operation and

Development (OECD). The evaluation also reviewed the 2007 AgriInsurance Evaluation and the three PSRMP reviews. Please see Annex A for a complete list of documents reviewed.

2. Literature review

The literature review focused on the following key themes: the role of the private sector in crop insurance, a comparison of crop insurance programs in other countries, public and private reinsurance and the impact of government subsidy levels on participation rates. The review was primarily a desktop study, although a limited number of interviews were also conducted (n=2). The examination included peer-reviewed publications, research reports, industry association position papers and government reports. A complete list of literature reviewed is included in Annex B.

3. Analysis of program performance information

An analysis of program performance information was completed to assess the outputs and outcomes related to the programs. The AgriInsurance and Wildlife Compensation Program has an extensive cross-sectional database, the Production Insurance National Statistical System (PINSS), which contains information related to participation, coverage, administrative expenditures, indemnities and premiums by crop and by province. PINSS is a web-based application which incorporates data from individual provincial insurance plans. PINSS data supports federal and provincial program and individual crop planning, as well as administrative functions such as verifying and processing financial claims and performance monitoring. Data from the PINSS database was primarily used to provide historical information on the program and to support the analysis of program future expenditures.

4. Analysis of program future expenditures

An analysis of program future expenditures explored the historical data from the PINSS dataset to examine sources of current and future growth and variability of AgriInsurance expenditures by the federal government, assuming no substantive changes to current regulations and agreements with the provinces. External factors affecting expenditures and their variability were also presented.

The reason for examining the issue of future expenditures stems from the fairly rapid rise in dollar coverage levels and expenditures on AgriInsurance in recent years. The program variables that were examined included: level of coverage; number of seeded acres insured; yield increases and prices and their variability; and the extension of insurance to other crops.

5. Key Informant Interviews

Interviews were undertaken in 32 sessions with a total of 42 key informants to gather perspectives on the programs from key stakeholder groups. Interviewees were selected to include federal and provincial government officials familiar with program delivery and management, as well as producer associations that represent the interests of farming sectors that have a vested interest in the AgriInsurance program (see Table 1).

One potential bias related to the selection of interviewees is that the evaluation was not able to interview all stakeholder groups who have an interest in the AgriInsurance program. The evaluation attempted to interview as diverse a group of stakeholders as possible, focusing on the larger associations related to the major commodities.

Table 1: Interviews by Sub-Group

Interview Sub-Group	Number of Interviews	Number of Interviewees
AAFC program staff (all who are located at national headquarters)	4	6
Provincial officials representing 10 provinces	10	18
Producer associations	15	15
Private insurance firms	2	2
Farm Credit Canada	1	1
Total	32	42

In terms of the sample size of the interview sub-groups, the evaluation interviewed all AAFC management staff related to the programs to insure that all perspectives were considered. Similarly, all of the major national commodity groups that have an interest in the AgriInsurance program were interviewed to ensure that all groups were represented. The evaluation also included a sample of regional/provincial commodity associations to gain a greater understanding of issues at the provincial level. Finally, two private firms and a representative from Farm Credit Canada were interviewed. The intention was not to represent the entire private industry, but rather to gain a sense of some of the issues facing private insurance companies and how the AgriInsurance program impacts on the producers' credit-related decisions.

1.4 METHODOLOGICAL CONSIDERATIONS

There are several considerations or limitations to note when reading the evaluation.

Limitation	Mitigation Strategy	Impact on Evaluation
Consultations with producers were not conducted due to challenges related to contracting within the timeframe for completion of the evaluation.	Interviews with national and provincial commodity associations were conducted to gain a greater understanding of the needs of their members.	The evaluation may not be entirely representative of producers' views.
Individual farm level data were not available.	A stakeholder approach was used to supplement the quantitative data available in the PINSS database.	The evaluation is not able to empirically determine if producers with insurance are more successful than those without insurance.

2.0 PROFILE OF THE PROGRAMS

2.1 BACKGROUND

Growing Forward is the current federal-provincial-territorial (FPT) agricultural policy framework for the 2008/09 to 2012/13 period. Under Growing Forward, governments agreed to work together to achieve three strategic outcomes:

- A competitive and innovative sector;
- A sector that contributes to society's priorities; and
- A sector that is proactive in managing risk.

The BRM suite is intended to support Growing Forward strategic outcomes by providing producers with effective tools to manage business risks that are largely beyond their control, thereby helping them to reduce income losses stemming from low commodity prices, or reduced production caused by natural disasters or market conditions.

Growing Forward includes four core BRM programs:

- AgriInsurance provides insurance against production losses for specified perils (e.g. weather, pests, and disease).

- AgriStability covers declines of more than 15% in a producer's average production margin from previous years.

- AgriInvest is a self-managed savings account into which both producers and governments deposit funds that can be used to cover small income declines or to make investments to help improve market income.

- AgriRecovery is a disaster-relief framework that provides a coordinated process for FPT governments to respond rapidly when disasters strike, assisting with extraordinary costs not covered by existing programs.

Other BRM programs outside the core suite include loan guarantees under the Canadian Agricultural Loans Act, the Advance Payment Program (APP) delivered under the authority of the Agricultural Marketing Programs Act and supply-management for a number of commodities (e.g. dairy, poultry and eggs).

The objective of AgriInsurance is to mitigate the financial impacts of production losses by providing actuarially-sound coverage for agricultural products. These losses can be caused by severe and uncontrollable natural hazards such as drought, flood, excessive rain, or by uncontrollable disease or insect infestations. Federal support for production/crop insurance programs was formalized in 1959 with the *Crop Insurance Act, which* provided financial aid to provinces wishing to establish production/crop insurance programs. A major review of Canadian agricultural policy in 1989 led to passage of the *Farm Income Protection Act (FIPA)* (1991), which consolidated farm income program legislation, including the *Crop Insurance Act*, in one statute.

Since 2001, federal government agricultural programming has been aimed at helping Canada's agricultural sector move beyond crisis management by providing tools to manage risk in a pro-active way. AgriInsurance remains a key component of the proactive risk management strategy advanced by the current FPT agricultural policy framework, known as Growing Forward.

The Wildlife Compensation Program, a separate program from AgriInsurance, but also legislated under FIPA, provides financial assistance for wildlife damage to agricultural crops and predation of livestock. Producers are not required to participate in AgriInsurance to be eligible for the Wildlife Compensation Program and do not have to pay premiums or administration fees.

To support the AgriInsurance program, the federal government also developed the Private Sector Risk Management Partnerships (PSRMP) Program. PSRMP was launched in December 2003 and terminated in March 2010 as a result of a re-allocation of program funds. The objective of the program was to provide time-limited financial and technical assistance to facilitate agricultural industry-led risk management projects. The intention of approved PSRMP projects was to assist producer organizations to prepare comprehensive business cases for securing new private sector financial risk management solutions.

2.2 DESIGN AND DELIVERY

AgriInsurance (PAA# 2.1.4)

AgriInsurance is a federal-provincial-producer cost-shared program that stabilizes a producer’s income by minimizing the economic effects of production losses caused by natural hazards such as drought, flood, hail, frost, excessive moisture, and disease. Producers are able to tailor the protection to their individual needs and use this protection to secure loans, achieve more stability in prices by hedging a portion of their crop and planning for the longer term. Program funds consist primarily of statutory grants and contributions.

The cost of the insurance premiums is partially offset by federal and provincial governments to ensure the affordability of coverage for producers. Federal and provincial governments pay 60% of total premiums cost shared on a 60/40 basis (federal-provincial) while producers contribute the remaining 40%. This results in 36-24-40 percentage shares for the federal government, provinces and producers.[3] Premiums are established in accordance with actuarial principles to cover long term program payments to producers.

The AgriInsurance program also includes an Administration Research and Pilot Initiative Fund (ARPI). The ARPI provides funding to the provinces to conduct research on improving administrative practices. The Fund provides up to 80% of the cost of carrying out research in this area.

The primary stakeholders involved in the AgriInsurance program are the federal government, the provincial governments and the participating producers.

- **The federal government –** shares premium and administration costs, provides reinsurance[4] (deficit financing) and ensures that cost-shared provincial programs meet legislated requirements.
- **Provincial and territorial governments –** design, develop and deliver insurance plans, share the premium and administrative costs and ensure deficit financing where they choose not to participate in federal reinsurance. They are involved in the design, marketing and delivery of actuarially sound insurance plans to their producers, setting premiums, claims adjustments and payments, and all related administrative and planning tasks.
- **Producers** – are the ultimate beneficiaries of the program. Through AgriInsurance, producers have the opportunity to buy insurance to address their particular needs and level of risk tolerance. They select the agricultural product they wish to insure, the type of insurance plan, the coverage level (generally between 70% and 80% of a producer's 10-15 year average of historical production), and the insurable value from the options available in their province.

AAFC's Production Insurance and Risk Management Division (PIRMD), Programs Branch, is responsible for managing and coordinating the federal government's participation in the AgriInsurance program. PIRMD includes two separate units:

- **National Operations Unit** is responsible for three areas: (1) Operations: negotiates and drafts operational documents; liaises with producer organizations and provincial delivery agencies; reviews and assesses the eligibility of provincial program proposals; reviews and recommends approval of provincial claims in PINSS; follows-up on compliance audit findings; evaluates and approves provincial research proposals in conjunction with AIWG, (2) Systems – maintains the PINSS,

[3] The federal government's share of premium costs also depends on the category of the AgriInsurance plan: 60% for catastrophic production loss coverage (infrequent, severe or multiple-year losses that occur on average once every 15 years); 36% for comprehensive coverage (basic AgriInsurance multi-peril coverage); and 20% for high-cost coverage (higher risk plans such as risk-splitting and coverage levels above 80%).

[4] Currently, five provinces (Alberta (AB), Saskatchewan (SK), Manitoba (MB), New Brunswick (NB), and Nova Scotia (NS)) participate in this arrangement while the others rely on some combination of private sector reinsurance and/or provincial treasuries.

AgriForum, and Division Website, and (3) Reporting – provides internal and external reporting of program data.

- **Actuarial & Forecasting Unit** ensures that provincial production insurance plans are sound, self-sustaining, meet actuarial requirements and are in compliance with applicable federal legislation, regulations and agreements; establishes and audits the actuarial requirements of certifications, tests and advises on various actuarial and production insurance issues; advises provinces and delivery agencies regarding interpretations of the actuarial guidelines, regulations and agreements that apply to the provincial production insurance plans.

PIRMP is supported by the department's Business Risk Management Finance and Administrative Services for their overall financial management. They process the federal contribution payments, verify and recommend payment of Provincial claims for administrative reimbursement, maintain AAFC's Saturn Financial reporting system, and provide internal and external reporting of program financial data.

At the FPT level, the AgriInsurance Working Group (AIWG), reporting to the Business Risk Management Policy Working Group, is the Federal-Provincial-Territorial forum for exchanging information on AgriInsurance policies and practices.

Under Growing Forward, Agricultural Ministers committed to extending insurance protection to additional commodities, including livestock, and to supporting innovation in the public and private sectors. Consistent with this vision, provinces are continuing to work closely with industry to address gaps in their current programming for all crops, including the horticulture sector and federal and provincial officials are continuing to work on establishing national standards for the development/implementation of livestock production insurance. In addition, the FPT AgriInsurance Working Group (AIWG) was assigned the task of assessing program and delivery funding options with a view to having a consistent insurance product that best suits the needs of producers and governments across the country.[5]

The Wildlife Compensation Program (under PAA# 2.1.4)

Legislated under *FIPA*, the Wildlife Compensation Program is a provincially delivered, but federal-provincial cost-shared program (split 60/40) that provides financial assistance for wildlife damage to agricultural crops and predation of livestock.[6] The type of wildlife

[5] Other enhancements that were initiated to ensure that the program is effective for all commodities include: maximum coverage of up to 90% for all commodities if desired by the province; weather data and satellite imagery being used to determine payments; and consistent federal premium cost-sharing arrangements that offer the most government support for severe and widespread losses and the least premium support for smaller and more frequent losses.

[6] Federal involvement began in the 1970's to compensate producers for damages caused by migratory birds being protected under federal legislation (International Convention on Migratory Waterfowl).

species covered by the program is designated in the Operational Document which forms part of the federal-provincial AgriInsurance agreements. The program compensates producers up to 80% of the production losses incurred, although some provinces (AB, SK, MB, ON), offer their own coverage beyond the 80% to cover up to 100% of losses. This additional coverage is not cost-shared with the federal government.[7]

Damages caused by any species can be included in the Operational Document as long as the province can demonstrate that they have wildlife-damage mitigation strategies in place. Producers receiving compensation must make efforts to mitigate or prevent a reoccurrence of losses. These efforts include such things as buying a guard dog, using noise makers, and installing fences. The mitigation methods that are supported and the level of financial compensation paid are up to the discretion of the provinces.

Producers who experience damage to their crops or livestock caused by eligible wildlife may make a claim to the provincial authority administering the program and an adjuster will assess the nature of the claim and determine whether it is eligible for compensation. Producers do not pay an enrollment fee or a premium to obtain wildlife compensation. This program is not an insurance plan and the producer is not required to be an insured producer.

Private Sector Risk Management Partnerships Program (PAA# 2.1.4.3)

Launched in December 2003, PSRMP provided financial and technical assistance to industry-led projects whose aim was the development of a comprehensive business case for a proposed risk management product or service. It was a federally-funded program to assist commodity groups and producer organizations to partner with private sector insurers to develop new risk management tools. Eligible PSRMP program applicants needed to demonstrate that the project would be led by a Canadian national, regional or provincial producer organization with the capacity to deliver the product for the benefit of its member-producers who were directly involved in the production of agricultural products.

The business case for PSRMP was expected to form the basis of a strategic alliance between the producer organization and a private sector insurer in developing and delivering the product or service intended to fill the identified gap(s) in insurance coverage. The intended products of PSRMP projects varied substantially but were grouped under three themes: conducting risk assessments that would identify and prioritize the business risks facing producers; developing interim risk management solutions while data were being collected to develop insurance-based protection; or developing a comprehensive business case for securing a private sector risk management solution. The program was managed and delivered by PIRMD.

[7] It should be noted that provinces can include wildlife damage coverage as an insurable peril under AgriInsurance. Currently, Quebec is the only province that includes wildlife damage as an insurable peril under AgriInsurance.

The PSRMP project approval process was comprised of two separate phases:

1. application screening by PSRMP staff leading to the development of a detailed project work plan (with the assistance of PSRMP staff); and
2. work plan review and approval by subject matter experts (AAFC staff, academia, agro-consultants, etc.).

Successful applicants became PSRMP program clients who then entered into Contribution Agreements (CAs) with AAFC. Projects could comprise a single CA, or a sequence of CAs depending upon the project's complexity and duration.

Eligible PSRMP project-related activities included, but were not limited to: research and development costs, data collection and/or analysis expenses, legal costs directly related to project objective(s), actuarial costs and other professional services, consultations and communication activities, and travel. PSRMP recipient funding was limited to a maximum of $500,000 per fiscal year per recipient.

With the signing of Growing Forward, the end date for PSRMP was extended to March 31, 2012. Following the Federal Expenditure Review Exercise in 2008/09, the program was scheduled to be cancelled March 31, 2010. However, projects with signed contracts continued but no new proposals were considered after March 31, 2007.

Three reviews of the PSRMP program have been completed to-date: a review conducted in April 2007 by the PSRMP program; a formal review carried out to respect the stated Treasury Board reporting requirements for the Program within three years of its introduction[8]; and a final review carried out by the Program in June 2012.

PROGRAM RESOURCES

Table 2 presents the AAFC budget and expenditures for AgriInsurance for the fiscal years of 2008/09 to 2012/13. The AgriInsurance budget totaled $2.05 billion over five years, including $2.03 billion in grants and contributions (Vote 10). The AgriInsurance budget includes the costs of the Wildlife Compensation Program.

Table 2: AgriInsurance Budgeted/Expenditures for 2008/09 to 2012/13 (millions)

[8] As the initial 18 months of the program life cycle was spent on program development, the review was conducted after approximately 3.5 years of project funding. PRA Inc. was contracted by the department's Office of Audit and Evaluation to conduct the review. The review was based on four criteria: program rationale and relevance, design and delivery, success and impacts and cost-effectiveness.

		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	Total
Vote 1	Budgeted	4.50	4.50	4.40	4.40	5.40	23.20
	Expenditures	**2.00**	**1.75**	**1.77**	**1.66**	**N/A**	**N/A**
	Under / (Over) Budget	2.50	2.75	2.63	2.74	N/A	N/A
Vote 10	Budgeted	390.7	406.30	412.00	412.00	410.00	2,031.00
	Expenditures	**533.40**	**530.30**	**493.60**	**575.00**	**N/A**	**N/A**
	Under / (Over) Budget	(142.7)	(124.0)	(81.6)	(163.0)	N/A	N/A
Total	Budgeted	395.20	410.80	416.40	416.40	415.40	2,054.20
	Expenditures	**535.40**	**532.05**	**495.37**	**576.66**	**N/A**	**N/A**
	Under / (Over) Budget	(140.2)	(121.25)	(78.97)	(160.26)	N/A	N/A

Source: AAFC, 2012.

Table 3 presents the AAFC budget and expenditures for PSRMP for the fiscal years of 2008/09 to 2011/12. AAFC budgets totaled $4.41 million per year with a total of $17.65 million over four years, including $12.0 million in grants and contributions. Of the total budget, the program spent $5.60 million in grants and contributions over two years of implementation prior to being cancelled.[9]

Table 3: PSRMP Budgeted/Expenditures for 2008/09 to 2011/12 (millions)

	2008-2009	2009-2010	2010-2011	2011-2012	Total
Vote 1 Budgeted	1.41	1.41	1.41	1.41	5.64
Vote 10 Budgeted	3.00	3.00	3.00	3.00	12.00
Vote 10 Expenditures	2.70	2.87	*	*	5.60
Total Budgeted	**4.41**	**4.41**	**4.41**	**4.41**	**17.65**
Total Expenditures**	**2.70**	**2.87**	*****	*****	**5.60**

Source: AAFC, 2012
* PSRMP funding was approved for only two years and then it was cancelled in 2010 and thus no expenditures within these fiscal years.
** PSRMP actual Vote 1 expenditures were not available.

[9] PSRMP Vote 1 expenditures are not available. PSRMP activities were carried out the by the AgriInsurance program in 2008/09 and the allocation of salary and NPO expenditures was not recorded. It is estimated that 3.0 FTE's worked on PSRMP during Growing Forward.

3.0 EVALUATION FINDINGS

3.1 RELEVANCE

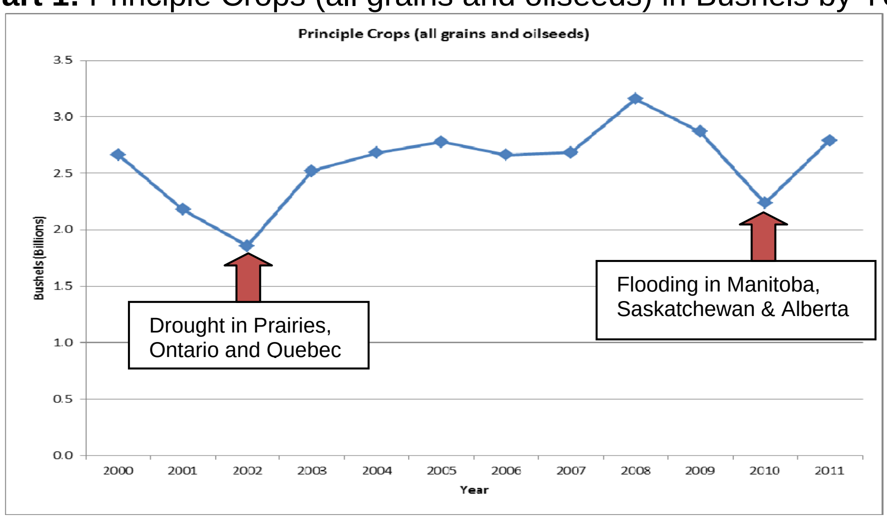
3.1.1 Federal support for agriculture insurance is important for helping producers manage production risks in order to promote stability in the agriculture sector.

This section discusses how agriculture insurance is an important tool for producers to manage production related risks associated with weather and disease. As market determined premiums for multi-peril crop insurance[10] would not be affordable for the majority of producers, federal support for agriculture insurance is important for mitigating the impact of production losses.

Variation in Production as a Result of Weather and Disease

There is significant variation in agriculture production primarily due to the adverse effects of weather and disease. Droughts can lead to stunted crop growth, whereas flooding can prevent seeding and damage agricultural land. Disease can have a significant impact on livestock mortality. For example, Chart 1 below demonstrates the variability of principle crops from 2000 to 2011. In 2001 and 2002 droughts that affected much of the Prairies and parts of Ontario and Quebec resulted in production losses exceeding $4 billion. More recently in 2009 and 2010 the production of principle crops dropped significantly due to flooding in Manitoba, Saskatchewan and Alberta leaving millions of acres unseeded.

Chart 1: Principle Crops (all grains and oilseeds) in Bushels by Year



Source: Statistics Canada. Table 001-0017 - Estimated areas, yield, production, average farm price and total farm value of principal field crops, in imperial units, annual, CANSIM (database).

[10] Multi-peril crop insurance (MPCI) – Is a single insurance contract to protect (a) crop(s) against all natural perils including adverse weather, fire, insects, disease, drought and excessive moisture due to unavoidable causes. Single-peril crop insurance (SPCI) – Is a type of crop insurance that provides protection against direct loss from a specified peril (e.g. hail) described in the insurance contract.

The livestock industry also faces production challenges, related to disease. For example, from 2004 to 2006 Porcine Circovirus (PCV) diseases showed an increase in the hog sector in the Eastern provinces of Canada. The number of PCV pathology cases increased from about 50 cases in 2004 to 350 cases in 2005 as reported by the Animal Health Laboratory of the University of Guelph. Overall, there was a 2.3% increase in hog mortality between 2004 and 2005.[11] Interviews also confirmed the negative impact of PCV diseases on hog mortality.

Production related risks are expected to increase in the future due to the effects of climate change. It is predicted that climate change will lead to an increase in weather variation (changes in the pattern of temperature and rainfall); and volatility (more extreme weather – temperature, wind speed, and amount of precipitation). According to the World Bank, the agricultural sector is particularly affected by more frequent and severe adverse natural events that may result as a consequence of climate change.[12]

Insurance is an Important Tool for Managing Production Risks

Insurance markets are important to producers for managing the negative consequences of risk and uncertainty. The purpose of insurance is to pool risk. Risk pooling involves combining the risks faced by a large number of producers who contribute premiums to a fund which is used to cover the losses incurred by any individual in the pool.[13] Risks are insurable, if certain conditions are fulfilled, including:

1. The insurer and the insured have the same information with regard to the probability of a poor outcome (symmetric information).
2. Risks should be independent across insured individuals. If risks are systemic (dependent), measures must be taken to make insurance solutions viable.
3. In order to determine premium rates, the insurance company must be able to calculate the chance of loss, and the average frequency and severity of loss.
4. Actual losses must be determinable and measurable.
5. Premiums must be affordable.[14]

The benefits of insurance relate to the fact that pooling the losses of a large number of producers creates an average loss for the pool that has a variance that is less than the average of the individual variances. In other words, the variance of the aggregate (pooled) loss is lower than the variance of the many individual losses. Society, therefore, benefits from pooling independent risks since the risk faced by the pool is less than the sum of the

[11] http://www.thepigsite.com/articles/1/pig-health-and-welfare/2044/porcine-circovirus-associated-diseases-pcvad-in-canada-prevalence-co-factors-and-risk-factors
[12] World Bank, 2010
[13] Bielza, M., C. Conte, C. Dittmann, J. Gallego and J. Stroblmair. (2008). Agricultural Insurance Schemes. Final Report. European Commission.
http://ec.europa.eu/agriculture/analysis/external/insurance/full_report_en.pdf
[14] (Skees 1997, Skees and Barnett 1999)

individual risks. Insurance markets reduce the risk faced by society and thus the aggregate cost of managing risk. [15]

A producer's well-being is, therefore, expected to be higher when he or she has opportunities to diversify risk, such as through purchasing insurance. [16] When decision makers are risk averse, they are willing to give up some income to protect themselves from future events that may cause them to lose large amounts of income. Well-functioning risk-sharing markets allow firms to protect themselves from risk and pursue the advantages that come from specialization.[17]

Further, if a producer does not have access to risk mitigation tools, risk and uncertainty may result in lower than profit-maximising levels of production[18]. In some cases, highly risk-averse producers may actually increase supply to avoid catastrophic outcomes[19], but this can be costly and can have negative consequences for a producer if prices fall resulting in a lower value of inventory. Finally, the risk-averse producer is also expected to produce less than the risk-neutral producer and the risk-averse producer will adjust output to changing risk conditions (e.g., decrease production as risk increases).[20]

Public Sector Involvement in Multi-Peril Agriculture Insurance

According to the literature review, public sector involvement in agriculture insurance is important because market determined premiums (i.e. no government subsidies) for multi-peril crop insurance would be too costly for the majority of producers. Risks related to weather or epidemic diseases cause particular problems for insurance markets. More importantly, risks related to natural disasters are highly correlated among farmers of a region (i.e. systemic risk) and also have a low probability of very high losses (based on historical data).

The high correlation of risk between farms can generate major losses in the portfolio of private insurers. Losses for major events, such as those that occur once every hundred years, may exceed average expected losses and seriously affect the financial solvency of insurance companies. The nature of the systemic risk makes it necessary for an insurance company to charge high premiums (which would likely be unaffordable for most farmers) to build up substantial capital reserves. Further, as a result of the potential for severe losses, it is not possible for the private sector to obtain private re-insurance, which is critical for covering years of high losses.

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[15] (Priest, 1996)
[16] Ahsan, S.M., Ali, A.A.G., & Kurian, N.J., 1982, Toward a Theory of Agricultural Insurance. *American Journal of Agricultural Economics*, *64*(3), doi:10.2307/1240644.
[17] (Skees, 1999, p. 36).
[18] OECD (Ed.), 2000, *Income risk management in agriculture*. OECD Publishing. Retrieved from http://www.oecd.org/dataoecd/46/54/42750750.pdf. p. 12.
[19] Subervie, J., 2007, The Variable Response of Agricultural Supply to World Price Instability in Developing Countries. *Journal of Agricultural Economics*, *0*, 071003055534005-??? doi:10.1111/j.1477-9552.2007.00136.x. p. 75.
[20] Moschini and Hennessy (2001)

Other factors that lead to high market determined premiums include:[21]

- Information Asymmetries: the two critical information problems that any insurance program faces are adverse selection[22] and moral hazard[23]. These two problems are directly associated with the difficulties in measuring risks and monitoring producer behavior. It is challenging (and therefore expensive) for private insurers to measure risks, collect relevant data, monitor producer behavior, and establish and enforce underwriting guidelines.
- High underwriting, operational and administrative costs due to the geographical dispersion of agricultural products and the number of small farm businesses.
- High start-up costs, including obtaining the necessary data.
- Insurance companies must possess advanced scientific knowledge due to the complexity of the biological processes of agricultural production.

The above characteristics of agricultural insurance contribute to the greater involvement of the public sector in crop insurance, especially for multi-peril type products. However, it should be noted that the private sector in Canada does offer single-peril insurance, primarily hail insurance, and reinsurance for the mid-layer of risk of provincial agriculture insurance liabilities. Private hail insurance is offered in all ten provinces and six provinces use private sector re-insurance. Therefore, although the private sector does not provide multi-peril insurance, it does play a strong role in single-peril insurance.

AgriInsurance Increases the Predictability of Government Liabilities

Government supported agriculture insurance also increases the predictability of government expenses by reducing the need for ad-hoc programming in the face of an unpredictable weather or disease event. Provincial and federal governments are able to budget their costs in advance as AgriInsurance is based on actuarial principles. The actuarial requirement for premium setting ensures that AgriInsurance revenues offset indemnities over the long-term. Governments are also able to put in place the administrative capacities and staff needed to respond effectively and efficiently to adverse events.

In conclusion, agriculture production insurance is an important tool for producers to manage production related risks. As market determined premiums on multi-peril production insurance plans would not be affordable for the majority of producers, the federal government's support for agriculture insurance is important to ensure stability in the agriculture sector.

[21] (Mahul and Stutley, 2010)
[22] Adverse selection occurs when the design of an insurance product induces participation by a group of insured parties that is different than the group it was designed for.
[23] Moral Hazard occurs when "insured producers alter their behavior after purchasing insurance to affect their likelihood of collecting an indemnity" (Glauber, 2004).

3.1.2 The AgriInsurance program aligns with the historic federal role for supporting the agriculture sector and the AAFC Strategic Outcome related to business risk management.

The evaluation assessed the alignment of AgriInsurance with federal roles and with AAFC strategic outcomes.

Federal policies directed specifically at agriculture insurance in Canada date back to the introduction of the *Agriculture Stabilization Act* in 1958. With the passing of the Crop Insurance Act in 1959, there has always been a federally subsidized crop/production insurance program in Canada. Although the program has evolved throughout its history, the core mandate and design of the program has remained relatively unchanged. The federal government has also historically provided a form of federal reinsurance support (deficit financing) for crop/production insurance in Canada and is committed to continuing this support.

Federal, provincial and producer roles related to crop/production insurance have evolved over time, but the underlining principle of a shared responsibility has been consistent. As agriculture is a shared jurisdiction between the federal and provincial governments, both levels of government have been involved in the program throughout its history. According to interviews, the federal government's involvement in crop/production insurance aligns with stakeholder expectations of government roles related to risk management in the agriculture sector, including:

- Assisting producers with large and unpredictable losses;
- Supporting a level playing field for producers across the country; and
- Helping to place Canada's sector on a level playing field with competitor countries that provide government support to their producers.

AAFC has committed to supporting proactive risk management in the agriculture sector. AgriInsurance (PAA# 2.1.4) is linked to the AAFC strategic outcome of "a competitive agriculture, agri-food and agri-based products sector that proactively manages risk," (PAA# 2.) the objective of which is to ensure food safety, market development and responsiveness, and improved regulatory processes. This strategic outcome also aligns with the Government of Canada's overall objective of strong economic growth.

Budget 2012 indicated continued federal support for business risk management programs stating, "the new five-year framework agreement will set out policies and programs to support a modern, innovative and market-oriented sector. This will include a refocused suite of Business Risk Management programs." Further, federal, provincial and territorial (FPT) Ministers of Agriculture have recently reached agreement on the five-year Growing Forward 2 policy framework. The agreement notes that "governments will continue to deliver a complete and effective suite of business risk management (BRM) programs to ensure farmers are protected against severe market volatility and disaster situations."[24]

Finally, the AgriInsurance program is aligned with the department's legislated mandate. AgriInsurance is a statutory program governed by the provisions of section 4(1) of FIPA. Section 4(1) of FIPA authorizes the Minister to enter into agreement with one or more provinces for the establishment of a crop insurance program.

In conclusion, AgriInsurance is aligned with the historic federal role for supporting the agriculture sector and AAFC the Strategic Outcome related to business risk management.

3.1.3 The increase in prices in the grains and oilseeds sector has led to a significant increase in federal expenditures related to the AgriInsurance program.

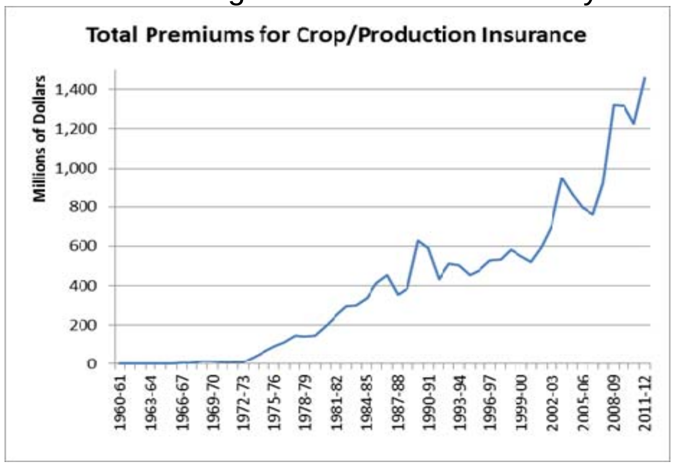
The following section discusses how the recent increase in the price of grains and oilseeds has led to a significant increase in federal expenditures related to the AgriInsurance program. It then discusses how subsidy levels have changed over the history of crop/production insurance programs based on FPT priorities, and how subsidies, in general, have an impact on program participation rates.

AgriInsurance Premium Cost Increases

Price increases in the grains and oilseeds sector over the past five years have had a significant impact on government expenditures associated with the AgriInsurance program. AgriInsurance premium costs have more than tripled in the last 10 years, rising from $550 million in 1999-2000 to $1.6 billion in 2011-12 (see Chart 2). As a result, federal premium subsidies have risen from $198 million in 1999-2000 to $576 million in 2011-12.

[24] http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1294780620963&lang=eng

Chart 2: Total AgriInsurance Premiums by Year



Source: PINSS, 2012

The greatest increases in total premiums have occurred in the Prairie Provinces ($416 million to $1.2 billion), although significant increases have also occurred in other regions ($42 million to $80 million).

According to analysis conducted by the AgriInsurance program, premium increases in the past four years are due to price increases (55% of total premium increases), increases in area covered (25%), and increases in coverage levels and yields (20%). Further projections indicate that grain and oilseed prices are likely to remain at current levels or slighter higher, but with greater variation in the foreseeable future.[25]

Premium Subsidy Levels

In the past, FPT governments have adjusted premium subsidy levels to align with FPT priorities and objectives. According to interviews and program data:

- When crop insurance was first introduced in 1960, federal contributions to premium costs were 25%, with producers paying the remaining 75%. Provincial governments were responsible for all administrative costs.
- Beginning in the 1970s, in an effort to raise participation rates among producers the federal government increased its percentage share to 50%.
- In recognition of the need for greater equity among the federal and provincial governments in terms of the costs of the program, beginning in the 1990's both premium and administrative costs were shared equally by the federal government, provinces and territories at 25%.
- Finally, the federal share of premium costs then gradually increased to where it remains today at approximately 36% (see Annex C for a detailed breakdown of federal/provincial/producer subsidy rates over time).

[25] Food and Agriculture Organization of the United Nations (FAO), Food and Agricultural Policy Research Institute (FAPRI), International Food Policy Research Institute (IFPRI)

The current subsidy shares for AgriInsurance are the "double 60-40" formula that has been used since 2003. This means that producers pay 40 percent and governments together pay 60 percent, with the governments' share divided 60-40 (federal-provincial), yielding 40-24-36 percentage shares for producers, provinces and the federal government. In addition, governments pay for the administration costs of the program, also through the 60/40 split. These arrangements were finalized more than a decade ago in the BRM agreement under APF.

There is no documented rationale for the double 60-40 arrangement. The cost shares for AgriInsurance are not embedded in legislation, but are negotiated through agreements with the provinces and territories, and approved by Orders-in-Council (as required by FIPA). Further, coverage levels for each commodity are determined by the individual province and agreed to, for cost-sharing, by the federal government through FPT bilateral agreements.

Canada's premium subsidies are comparable to those of other countries. Based on 2003-2008 data, of 10 countries that provide premium subsidies, the level of subsidy ranged from 37% to 73%, with Canada at 50% and the U.S. at 45% (see Table 4 below).

Table 4: Top 10 Countries by Crop Insurance Premium Subsidies in 2003-08

Country	Premium	Premium Subsidy	Premium Subsidy
	--- Millions $US ---		%
Italy	383	280	73
Spain	809	581	72
Iran	241	146	61
Canada	1,090	546	50*
Russian Federation	315	156	50
Japan	1,111	549	49
United States	8,511	3,823	45**
Mexico	142	62	43
China	682	283	41
Korea, Rep of	93	34	37
Top 10 countries	13,375	6,460	48
Other 55 countries	1,727	135	8
All 65 countries	15,102	6,595	44

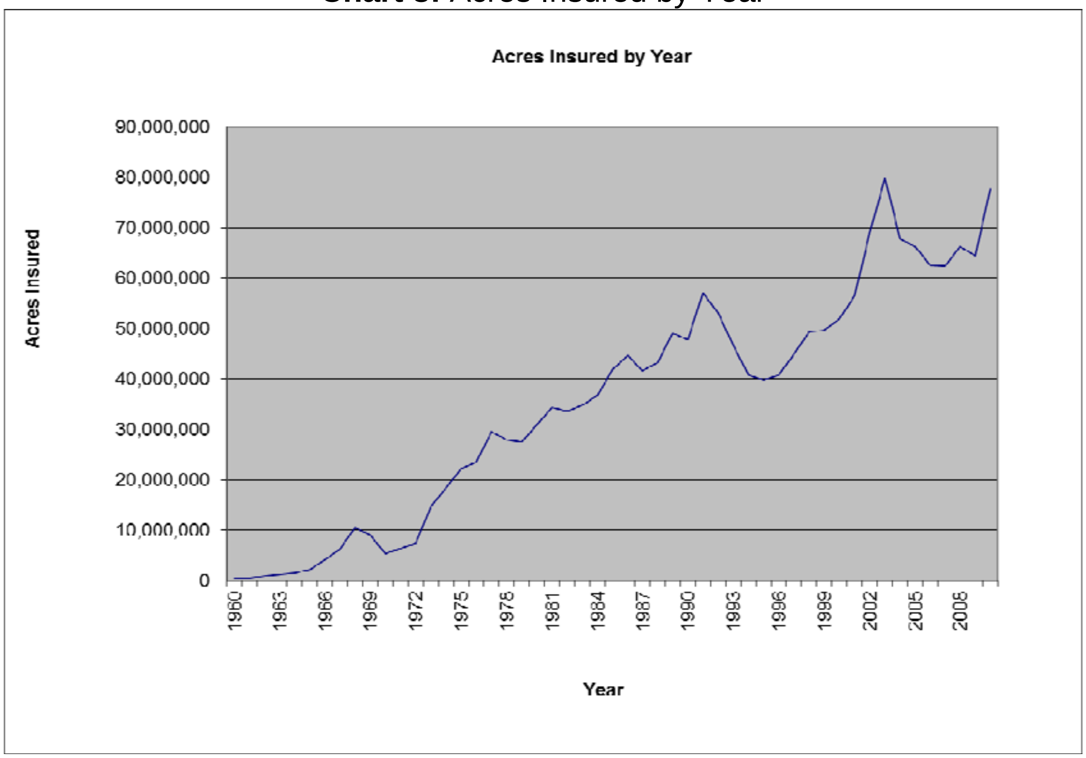
Source: World Bank; *Currently at 60%; ** Currently at 71%

Premium Subsidies Impact Participation Rates

According to the literature review, there is a direct relationship between subsidy levels and participation rates; the higher the subsidy rate generally the higher the participation rate. According to a World Bank study (2010), high levels of agricultural insurance uptake are found in high-income countries that offer high premium subsidy levels. In Canada, the ratio of 60:40 government to producers subsidy level results in a participation rate of 4.1 percent, measured as a percentage of agricultural GDP. By comparison, the United States has a 71:29 government to producer subsidy level resulting in a participation rate of 5.2 percent.

Participation in crop/production insurance programs in Canada has been steadily increasing since the program first began (see Chart 3).

Chart 3: Acres Insured by Year



Source: PINSS, 2012

According to analysis on program expenditures conducted for the evaluation, coverage of the major crops within AgriInsurance appears to be near maximums. The growth potential for additional acre coverage lies primarily in the addition of new crops available for coverage. Since most of the major crops (grains, oilseeds) are near maximums, the additional crops are likely to be higher valued (e.g. fruit, vegetables, special crops). Current government subsidy levels for AgriInsurance appear to be incenting a high level of participation among Canadian farmers.

Going forward, given the increase in expenditures related to AgriInsurance premiums, governments should review subsidy levels to ensure alignment with current FPT policy objectives and priorities for the sector.

3.1.4 Characteristics of the forage sector make it challenging to increase participation rates in forage related insurance plans.

The following section describes forage related insurance plans and the difficulties in increasing participation due to problems with calculating coverage rates (e.g. establishing accurate yields and prices). Forage has been covered under AgriInsurance since 1967. However, uptake has always been relatively low in comparison to other crops.

Forage includes hay, pasture and silage. There are two types of hay. Tame hay is grown on seeded pasture (i.e. cultivated cropland). The land has been improved from its natural state by seeding, draining, irrigating, fertilizing, etc. Native hay is grown on unseeded pasture (i.e. non-cultivated cropland), which has not been changed from its natural state. Silage is a fermented, high moisture fodder (usually made from corn or hay) that is often fed to cattle. The product is placed in a silo or pile and covered to allow the product to ferment.

Challenges in Increasing Participation Rates

Most jurisdictions in Canada offer insurance for both dryland and irrigated hay and provide a production guarantee based on an average of historical yields and coverage option selected (e.g. 50, 60, 70, or 80%). When hay production (harvested and appraised) falls below the production yield coverage, and the loss is due to an insured peril, the shortfall amount will be paid at the selected insurance contract price. Often hay insurance does not compensate for quality loss.

There are two main challenges related to the forage sector that make it difficult to increase participation in insurance plans. The first challenge is related to calculating yields for forage that is used for feed. Traditionally, forage has primarily been used as feed for livestock.[26] When used as feed, or added to feed inventory stocks, yields are not accounted for by producers. Producers let their livestock feed on forage fields as necessary and therefore do not calculate how much is consumed. With limited data on yields, it is challenging to develop an insurance plan that meets the needs of producers who grow forage to feed their livestock.

The second challenge relates to difficulties in establishing a base price for forage insurance. According to interviews, price for forage can vary considerably from year to

[26] 80% of Canada's forage crop is used as feed stock and forage represents 60-70% of the input costs for cattle.

year and over the course of a particular year. This makes it challenging to establish a base price for a given crop year, which is essential for developing an effective insurance plan. The more challenges there are to establishing a base price, the more difficulty there is to establishing an actuarial sound premium rate.

Low Participation Rates among Forage Producers

On average, from 2006/07 to 2011/12 only 20% of potential forage acres were insured under the AgriInsurance program (see Table 5). As a result of the low participation in AgriInsurance plans related to forage), when there are situations of forage shortages due to weather or disease, producers are not able to rely on effective insurance coverage to purchase the forage they need to feed their cattle or to re-establish their forage acres. Most of the forage insurance plans do not provide replacement coverage of feed for livestock producers.

Table 5: Forage Insured Acreage in Canada 2006-07 to 2011-12

Production Year	Number of Forage/Pasture & Silage Acres Insured	Insurable Number of Forage/Pasture & Silage Acres	Percentage of Forage/Pasture & Silage Acres Insured
2006-07	11,749,402	57,768,000	20%
2007-08	11,195,904	57,918,000	19%
2008-09	11,535,484	57,426,000	20%
2009-10	11,232,006	57,563,000	19%
2010-11	12,360,339	57,688,000	21%
2011-12	10,133,653	57,533,000	17%

Source: PINSS, AAFC
Notes: Includes all forage production (hay, pasture, silage, etc).
The number of insurable acres is an estimate from provincial sources.

The low participation in forage insurance plans appears to put pressure on FPT governments to provide disaster-related assistance. Since 2008[27], there have been four AgriRecovery initiatives solely for pasture or forage related issues. Two initiatives provided producers with financial assistance to offset the additional costs of feed associated with their animals not being able to access pastures because of drought conditions. The other two initiatives provided support to either purchase feed or offset the freight costs of having feed transported to the farm or the animals to the feed as a result of flooding. Governments provided up to $148 million for these four initiatives. A number of key informants noted that the availability of AgriRecovery funding for forage related disasters has had an impact on AgriInsurance participation rates related to forage.

[27] 2008 – Manitoba Forage Assistance Program; 2009- Manitoba Forage Restoration and Feed Assistance Program; 2010- Saskatchewan Pasture Recovery Initiative; and 2010 – Alberta Pasture Recovery Initiative.

The FPT forage task team[28] is currently working with the AgriInsurance Working Group to identify better methods of determining yield, increasing participation and addressing feed issues related to the forage sector. To address these challenges, the program is researching the possibility of using weather derivatives to estimate farm-level forage yields. However, it should be noted that using weather derivatives to estimate yields at the farm level also poses challenges as forage yields are very dependent on rainfall timing, amounts, and location. Two fairly close farms might receive different amounts of rain and thus have different forage yields. Basing yields on weather derivatives, therefore, is limited in terms of accuracy at the individual farm level.

It should be noted that these challenges were highlighted in the 2007 evaluation of the Production Insurance Program. The 2007 evaluation report recommended that AAFC in conjunction with the provinces and commodity associations should continue to promote the use by provinces of creative solutions within Production Insurance covering options for fresh fruits and vegetables, new crops, special crops, forage and pasture. In response, AAFC with the provinces has developed National Certification Guidelines for Premium Rate Methodologies and probable yield guidelines. AAFC continues to work with the provinces to develop insurance plans to address gaps in existing coverage.

In conclusion, FPT governments are aware of the challenges related to calculating coverage of insurance plans for the forage sector. Efforts are ongoing to address these challenges in order to increase participation rates, and to clarify the interpretation of what constitutes a disaster under the AgriRecovery framework.

3.1.5 The needs of the livestock sector are not homogeneous. FPT governments should explore alternatives outside of AgriInsurance-based programming to meet the needs of the livestock sector.

[28] The Forage Task Team was create in the spring of 2011.

Since 2004, governments have been working together to provide production insurance for the livestock sector. The following section describes the development of livestock insurance plans, and the challenges to meeting the sector's needs.

Uptake in the Development of Livestock Insurance Plans

Livestock was first included as an eligible commodity for federal insurance under the Agriculture Policy Framework (APF) in 2003. Prior to APF, the Crop Insurance Regulations (1990) focused explicitly on the grains and oilseeds sector and, therefore, livestock producers had no access to government subsidized insurance. The federal government's policy direction related to the APF expanded the prospect of livestock commodities obtaining agriculture insurance. As a result, the Crop Insurance Regulations (1990) were amended in 2004 to include livestock and re-named the Canada Production Insurance Regulations (2004).

Although livestock was eligible for production insurance under APF, it was not until Growing Forward in 2008-09 that the provinces put forward proposals to the federal government for livestock insurance. Interviewees noted three reasons for this: (1) no real need was identified until the end of the APF cycle; (2) there was no significant industry pressure for the development of insurance plans; and (3) data for cattle was not available for rate calculations until Growing Forward.

To date, five livestock insurance plans have been accepted for cost sharing, three for bees[29] in Alberta, Manitoba and Quebec and two for dairy cows in Prince Edward Island (PEI). Following their implementation, AAFC revisited the rational for providing production insurance to supply managed industries such as dairy. In addition, offering insurance plans for production in supply managed industries could result in the AgriInsurance premium costs being passed onto the consumer, through higher prices for products. In 2011, the AgriInsurance program postponed a final decision on a proposal submitted in 2008 by the Nova Scotia Crop Livestock Insurance Commission for the poultry sector, another supply managed commodity. The AIWG is currently reviewing the policy on the exclusion of supply managed industries from the AgriInsurance program. The PEI plans for dairy, which were approved before the policy review was initiated, were permitted to continue while this issue is being re-considered. AAFC is waiting for formal direction on the current and future insurance plans for supply managed commodities. A decision is expected by the fall of 2013.

Livestock Price Insurance

According to key informants and the literature review, livestock producers generally consider price to be a much more significant risk than production losses and therefore the

[29] Bees are considered eligible livestock for AgriInsurance pursuant to the Farm Income Protection Act and provincial insurance plans.

industry has a greater interest in price insurance[30] than production insurance. The major risks to livestock prices include changes in market price (that affect the price per animal as well as feed costs), exchange rates, and border restrictions. Livestock production is not as susceptible to weather and disease threats as producers of grains and oilseeds because they have a wider range of mitigation options that include relocation of the livestock, vaccination, establishing shelters and early sales.[31] Although the BSE crisis in 2003-04 was precipitated by a disease in the national herd, it was the closing of the US border to Canadian cattle and beef products and the resulting collapse in demand that resulted in the dramatic price decrease and significant losses to the sector.

Providing price-related payments to the livestock sector by subsidizing price insurance premiums through a government-funded program could be highly vulnerable to countervail from other countries, particularly the United States. Therefore, governments have opted to assist with the administrative costs or backstopping private insurance plans through reinsurance (deficit financing). Currently, the Government of Alberta administers five livestock insurance plans (see section 3.2.3 for more details), where producers pay all of the premium costs.

There are, however, particular industries in the livestock sector that do face challenges related to production and therefore have a strong interest in production insurance. For example, the close proximity and large number of animals involved in hog production make this commodity susceptible to disease related risks, such as the Porcine Circovirus mentioned earlier. Key Informants also confirmed this sector has an interest in production insurance.

In conclusion, the needs of the livestock sector are not homogeneous. Tools to help the sector mitigate risks will require a combination of government supported and private sector-led insurance products.

Recommendation #1:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Continue working with the livestock sector to develop relevant insurance plans, where appropriate (e.g. hogs), but also explore and report back to senior management on the viability of alternatives outside of the AgriInsurance program.

Management Response and Action Plan:

[30] There has been some progress in establishing price insurance. Alberta currently delivers a cattle and hog price insurance plan and the premium costs are totally funded by producers; however, uptake thus far has been low.

[31] As discussed in the previous section, forage is very susceptible to weather, which has a significant impact on livestock producers.

Agree. The department will continue to support the efforts of the provinces in working with the industry to develop livestock plans.

Directives designed to ensure the consistency in the plans implemented across the country will be formalized through the Multilateral Framework Agreement and approved by FPT ADMs. These guidelines will provide direction for the interaction with the industry on the fundamental questions around the level of coverage and cost sharing governments are prepared to provide through the livestock plans.

The Department will proceed with the development of programming under Growing Forward 2 to provide assistance to industry in the development of private sector risk management tools for livestock producers' production related risks.

A progress report outlining the status of new livestock plans developed and/or implemented and future initiatives proposed will be provided to FPT ADMs for approval.

Targets:
- Approval of the livestock directives by FPT ADMs – March 2013
- Approval of GF2 programming to explore private sector alternatives by March 2013
- Progress report to ADMs – December 2013

Responsibility: Director General, BRMPD

3.1.6 Uptake of production insurance by fresh fruit and vegetable growers appears to be low due to challenges in determining price and yield.

Horticulture is a diverse sector that can be classified into two categories: fruit and vegetable production (non-greenhouse); and production related to maple products, mushrooms, greenhouses, sod and nurseries.

Horticulture: Maple Products, Mushrooms, Greenhouses, Sod and Nurseries

There are no AgriInsurance products available for production related to maple products (outside of Quebec and Nova Scotia), mushrooms, greenhouses, sod and nurseries due to the limited demand for such products. As with livestock producers, these type of horticulture producers are not as susceptible to weather and disease threats as they have a wider range of mitigation options. For example, crops grown in greenhouses have a very controlled environment, limiting the threats of weather and disease. These industries represent 64% of the horticulture sector.

Horticulture: Fruit and Vegetable Production (non-greenhouse)

Fresh fruit and vegetable production involves two distinct categories: fresh production and processed production. According to interviews and the document review, uptake of AgriInsurance products among processed fruit and vegetable growers is high, but participation of fresh fruit and vegetable growers is low. Overall, when analyzing the participation rate of these two groups combined, rates have been increasing since 2008/09 and have exceeded the program's overall target of 60%. (See Table 6).

Table 6: Value of Horticulture Crops Insured compared to the Value of Horticulture Crops Eligible for Insurance 2008/09 to 2010/11

Year	Value of Horticulture Crops Insured ($)	Value of Horticulture Crops Eligible for Insurance ($)	Percentage of Insured Value to Eligible Crops (%)
2008/ 09	841,231,972	1,647,085,688	51.1
2009/10	1,116,946,472	1,976,811,673	56.5
2010/11	1,204,622,234	1,959,120,501	61.5

Source: BRM Performance Indicator Preliminary Detailed Report, March 2012.

However, based on qualitative data, this percentage represents mostly horticulture crops for processing as the uptake of fresh fruit and vegetable production is considered to be low. According to Agricorp, the Ontario provincial delivery agency for AgriInsurance:

> "Within the fresh vegetable industry, it is much harder to know the true uptake of the insurance because the statistics on fresh vegetable production in the province are typically combined with the processing acres. Uptake of insurance by fresh vegetable growers is believed to be quite low." [32]

Key Informant interviews conducted for this evaluation also confirmed that stakeholders widely believe that the uptake of insurance by fresh fruit and vegetable growers is low. Interviewees also noted that uptake is high for processing fruits and vegetables due to the fact that processing price data is determined through contracts and yields are based on delivery volume to the processor. For fresh fruits and vegetables, price data is often not available and it is difficult to calculate yields.

Challenges Related to Increasing AgriInsurance Uptake Among Fresh Fruit and Vegetable Growers

According to key informant interviews, there are several challenges to developing insurance plans for fresh fruit and vegetable growers. First, it is difficult to establish a price for a horticultural insurance plan as prices vary between producers, during the same year and from one year to the next. There is no international price for horticulture products so producers choose their own pricing and this can differ significantly from region to region.

[32] Agricorp, 2012

Accurate data on yield and prices received is also difficult to determine as fresh fruit and vegetable producers often sell directly to consumers at the farm or through farmers markets. Prices vary according to what the market will bear in the short term. The result is that data required by actuaries to develop overall yield or price calculations is not always accurate.

Finally, there is significant variability in commodities produced in the fresh fruit and vegetable sector. Producers can change the mix of the products they grow relatively quickly and during a single growing season. There are also variations in the products grown year-over-year. Consequently, yield can vary significantly from one year to the next. Fresh fruit and vegetable producers can also seed different amounts of land, different areas of their land, change varieties, change levels of fertilizer applied, and use different harvesting methods. The diversity of cropping practices used by fresh fruit and vegetable growers again results in difficulties estimating yields, which in turn makes it difficult to establish actuarially sound premium rates.

The need to address gaps related to horticulture production insurance was identified in the 2007 evaluation of the Production Insurance Program. In response to a recommendation contained in the evaluation report, the FPT AIWG has developed guidelines for yield and premium rates, which have supported the development of horticulture insurance initiatives in Ontario and Quebec in recent years. The AIWG is continuing to work with fresh fruit and vegetable producers to address the challenges noted above in order to develop plans that meet the needs of this sub-sector.

In conclusion, due to the nature of the marketing and production practices of the fresh fruit and vegetable industry, the development of production insurance plans will continue to be a challenge.

3.1.7 The Wildlife Compensation Program has no clear policy rationale for the range of species covered by the program. Further, it is not aligned with the insurance principles outlined in the Canada Production Insurance Regulations.

The following section describes how the Wildlife Compensation program has evolved such that there is no clear policy rationale for the range of species covered. It then outlines how the program does not align with the insurance principles outlined in the Canada Production Insurance Regulations.

The Wildlife Program Policy Rationale

In 1916, Canada and the United States signed the International Convention on Migratory Waterfowl, which prohibited the unregulated harvesting of migratory waterfowl in order to protect these species of birds. Recognizing that waterfowl can damage crops, Canada eventually established a waterfowl compensation program that compensated producers for losses caused by migratory waterfowl to prevent farmers from destroying these animals. The program was initially administered by Environment Canada; however, the compensation component of the program was transferred to AAFC in 1990 and formalized in the Crop Insurance Regulations (1990).

The waterfowl compensation program was broadened in 2003 under APF to include production losses resulting from any wildlife that producers were restricted from destroying under federal and provincial regulations. The program was renamed the Wildlife Compensation Program and was updated under the Canada Production Insurance Regulations (2004). One of the major reasons for this change was the introduction of livestock into the AgriInsurance Program. It was thought that crops eaten or damaged by wildlife, other than migratory waterfowl, such as deer, elk and other birds as well as livestock destroyed by wolves, coyotes and bears should be eligible for compensation under the Regulations. The inclusion of wildlife compensation provisions in the Canada Production Insurance Regulations (2004) was intended to ensure that the federal government offered all producers a consistent risk management option across commodities and provinces. APF also required that the provinces have effective mitigation/prevention measures in place to be eligible to receive federal funding.

When Growing Forward came into place in 2008, the program was again amended so that damages to crops or livestock caused by additional species, such as skunks and raccoons, would be covered.[33] Currently, 39 different species are included in the Wildlife Compensation Program for coverage. The changes in 2004 and 2008 to add species that are not protected under federal or provincial statutes have broadened the program application beyond what was originally envisioned for protecting waterfowl or other protected species.

The increase in the number of species covered by the program has resulted in an increase in claims and therefore the costs of the program. As shown in Table 7, over the nine year period from 2001/02 to 2010/11 the number of claims grew per year from 388 to 15,530, the cost of compensation paid from $1.8M to $26.3M, and the cost of administering the program from $0.29M to $6.0M. Administrative costs for the program have ranged from 17 to 26 percent since 2008-09.

[33] See Annex D for a full list of animals covered by the Program.

Table 7: Wildlife Program – Amounts Paid and Number of Claims by Fiscal Year

Fiscal Year	Amount Paid for Administration	Amount Paid in Compensation	Number of Claims	Administrative Cost per Claim	Average Payout per Claim
2001-02	$288,217	$1,785,217	388	$743	$4,601
2002-03	$261,763	$10,340,815	1,777	$147	$5,819
2003-04	$1,046,912	$3,328,100	643	$1,628	$5,176
2004-05	$2,082,291	$21,181,056	5,651	$368	$3,748
2005-06	$3,100,534	$16,611,322	6,692	$463	$2,482
2006-07	$3,299,916	$17,346,117	6,572	$502	$2,639
2007-08	$2,885,477	$19,488,112	6,257	$461	$3,115
2008-09	$3,615,297	$13,851,730	5,963	$606	$2,323
2009-10	$4,411,979	$26,296,637	11,348	$389	$2,317
2010-11	$5,971,737	$26,328,570	15,530	$385	$1,695

Source: PINSS, AAFC, 2012

Alignment with the Canada Production Insurance Regulations

Although regulated under the Canada Production Insurance Regulations, the Wildlife Compensation Program is not an insurance-based program. The program is not intended to be actuarially sound and producers are not expected to contribute to the costs of the program. While one province (Quebec) includes wildlife damage as a peril in its insurance plans, the vast majority of compensation for this type of damage is paid through the Wildlife Compensation Program. The program's design and delivery is, therefore, no longer aligned with the insurance principles[34] outlined in the Canada Production Insurance Regulations.

In conclusion, the Wildlife Compensation program has evolved in such a way that it has moved beyond its original policy rationale of protecting federally or provincially protected species. Further, the program does not align with the insurance principles outlined in the Canada Production Insurance Regulations.

[34] Such as determining actuarial sound premium rates; entering into insurance contracts; paying of premiums for coverage; and the establishment of a method determining yields, losses and indemnities, etc.

Recommendation #2:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Review the policy rationale for the Wildlife Compensation Program, including what constitutes the definition of “eligible wildlife”;

- Assess the feasibility of incorporating the production risks related to wildlife into existing production crop insurance plans; and

- Report back to senior management with findings and recommendations.

Management Response and Action Plan:

Agree. The Department is working with provinces on a comprehensive review of the Wildlife Compensation Program, including the policy rationale and the criteria for defining eligible species.
The review will include a report/presentation on the feasibility of incorporating wildlife related risks into AgriInsurance products along with any recommendations regarding eligible species.

Target: Report to FPT ADM’s with recommendation by December 2013

Responsibility: Director General BRMPD

3.2 PERFORMANCE - EFFECTIVENESS

3.2.1 Overall, the AgriInsurance program is achieving its outcomes.

Based on the program’s established performance measures, the AgriInsurance program is performing well and meeting its targets (see Table 8).

Table 8: AgriInsurance Performance Indicators and Results

Outputs / Outcomes	Performance Indicator	Target	Result
Outputs: Agreement for insurance plans	Operational Documents approved	10	10
Immediate Outcomes: Appropriate plans are offered	Progress on Livestock Insurance Plans	Framework Developed	Guidelines Developed *
	New Provincial proposals approved	10	17
	Value of products eligible for insurance	85% of all products	87.4%
	Effectiveness of self-sustainability (actuarial soundness)	Less than 1.00	0.87
Intermediate Outcomes: Producers participate in insurance plans	Value of insured products	60% of all products	61.69%
End Outcomes: Losses are mitigated through effective insurance plans	Producers feel AI is effective in mitigating losses	Greater than 70% of insured	87%**

Source: BRM January 2012 Performance Indicators Preliminary Detailed Report, March 27, 2012, AAFC
*five livestock plans were also developed.
**source: BRM survey 2010.

Other positive outcomes related to the AgriInsurance program include:

- AgriInsurance is accepted as collateral by financial institutions as the value of the insurance coverage is known and payment is guaranteed by governments in the event of a production loss. For example, financial institutions often require producers with high debt-to-assets ratios to have AgriInsurance coverage in order to qualify for loans. Further, AAFC requires crop producers to purchase insurance in order to qualify for a spring cash advance from the Advance Payment program.

- AgriInsurance provides timely and predictable payments to producers experiencing a decline in production. Payments are usually processed within six weeks after submitting a claim. Since AgriInsurance provides financial assistance quickly, the immediate need for a producer to obtain an operating loan to cover the loss is decreased, thus reducing the producers' overall potential debt from a loss.

Program officials advise that they are updating performance measures for BRM programs (which includes AgriInsurance) in order to reflect commitments contained in the new Multilateral Framework Agreement that was agreed to by FPT governments on September 14, 2012.

In conclusion, the AgriInsurance program is performing well based on existing performance measures.

3.2.2 While the Private Sector Risk Management Partnerships program was successful in identifying and developing new risk management products, there was limited take-up in terms of private sector delivery. While several plans have been implemented (through a mix of private and public delivery), participation has been limited.

PSRMP was approved for only the first two years of Growing Forward and was making limited progress towards achieving its established targets when the program was cancelled as part of an AAFC expenditure review exercise in 2010 (see Table 9).

Table 9: PSRMP Performance Indicators and Results

Performance Indicator	**Target**	**Result**
Number of agreements per year - For new and existing projects.	12 for existing projects 3 for new projects*	08-09: 13 09-10: 9 n/a
Number of business cases / information products developed	32	22**
Number of Risk Management Tools implemented by service providers.	12	10
% value of agricultural products for which insurance coverage is available	10% increase in general coverage	Not available

* No new applications could be submitted after March 31, 2007.
**17 business cases and 5 information products

According to the document review, a total of ten insurance plans were developed by PSRMP, and of those, nine plans were implemented (see Table 10). Of those nine plans, three are currently being delivered by the private sector and five are currently being delivered by the public sector. The five livestock plans are administered by the Government of Alberta through the Alberta Agriculture Financial Services Corporation (AFSC), four of which offer livestock price insurance.

Table 10: Insurance Plans that Resulted from the Business Cases Developed by Projects Funded by the PSRMP

Project Title	**Offered by**	**Status**

Private Sector Administered		
Egg/hatchery/layer insurance	Canadian Egg Industry Reciprocal Insurance Alliance (CEIRIA)	Participation not known
Floriculture insurance	Flowers Canada Growers	Participation not known
A weather derivative insurance coverage	Wild Rose Agricultural Producers	No participation
An Insurance-Based Indemnification Program for Bluetongue Disease in Sheep	Canadian Sheep Federation	Cancelled
Business case for the development of a Clearance House	Western Barley Growers Association	Not launched/implemented
Public Sector Administered*		
Expanded honey coverage	Alberta's AFSC	25% participation
Feeder Cattle Price Insurance Program	Alberta's AFSC	<2% participation
Fed Cattle Price Insurance Program	Alberta's AFSC	<2% participation
Calf Cattle Price Insurance Program	Alberta's AFSC	<2% participation
Hog Price Insurance Program (includes wieners and hogs)	Alberta's AFSC	<1% participation

*Although publically administered, the premiums for these insurance plans are not subsidized by either the provincial or federal governments.

Achievement of Outcomes

The goal of PSRMP was to engage the private sector in developing and delivering new private risk management tools. The four plans implemented by the private sector met varying degrees of success (and one was cancelled). The remaining five plans being delivered by the public sector have limited participation. Key informants did comment on the fact that attempts were made to lobby government to subsidize some of the new private sector risk management tools, without success.

Of the private sector delivered plans, the plan developed by the Canadian Egg Industry Reciprocal Insurance Alliance appears to be successful in that it is continuing. The remaining three plans are either yet to be marketed or have been cancelled due to a lack of subscription. The main barrier identified in the 2012 Internal Review conducted by the Program was producers' unwillingness to pay the appropriate (actuarially-sound) cost of insurance coverage. As stated by the Internal Review,

> "For several insurance projects, once the premium and administration cost of the plans became known, producer interest in the project declined significantly or resulted in requests that governments provide premium subsidies to make the program more affordable. (p.28)"

The internal review also provided a recommendation for improving program design. It suggested that future programming objectives be broadened to include the provincial delivery of plans (although producer paid) rather than solely focusing on private sector delivery. The report put forward the opinion that it is less important who delivers the insurance plan, but rather that the insurance plan is implemented and that the process is industry driven.

While PSRMP was cancelled as part of the federal government expenditure review exercise, the program did have varying degrees of success and provided some insights to improve the implementation of private-sector insurance-based products. The two key lessons learned are: 1) industry must consider the willingness and capacity of the sector to implement the insurance-based products as part of the project development; and 2) government may be required to support the launch of private-sector insurance-based products in the short-term. AAFC officials have noted that any similar type program introduced in the future will incorporate these lessons learned to encourage successful implementation of private-sector insurance-based products.

In conclusion, FPT governments have recognized that the successful uptake of new industry-led insurance-based products may require government support in the short-term to make the products viable.

3.3 PERFORMANCE – EFFICIENCY AND ECONOMY

3.3.1 Canada's approach for providing agricultural insurance is efficient and meets the needs of the sector.

Compared to other countries and program targets, the AgriInsurance program is being administered in an efficient manner. According to a study by The World Bank, out of a sample of 29 countries in 2008 Canada had the second lowest administrative costs (at 8%) (Moldova had the lowest) as measured by the percentage of administrative costs to total premiums.[35]

For the 29 countries sampled, the average cost structure was approximately 25–30 percent of original gross premiums. Cost structures in many private commercial crop hail markets are somewhat lower (23% in Australia, 22% in New Zealand, and 21% in South Africa, for example) than in most subsidized multi-peril crop insurance in countries such as Brazil (36%), Mexico (30%), India (30%), and the United States (26%). However,

[35] World Bank, 2010. The study noted that it was unclear if the figures underreported marketing and acquisition costs.

regardless of the delivery model, at 8% Canada's administrative costs relative to total premiums is lower than the majority of countries surveyed.

In terms of a direct comparison with the US, the average cost per policy in the US for 2010-11 was $674 compared to $397 in Canada. Although it wasn't within the scope of this evaluation to determine why Canada's costs are lower than the US costs, interviews anecdotally suggested that the reason for the cost difference is the public/private delivery model used in the US[36]. Using the private sector to deliver agriculture insurance in the US results in additional administrative expenses related to the cost of program delivery. In Canada, there is no profit made in the administration of AgriInsurance. Further, the provinces are able to gain efficiencies due to the fact that they have large well-established agriculture extension systems (e.g. they deliver multiple on-farm programs) which can then be leveraged to deliver the AgriInsurance program.

The AgriInsurance program is also meeting its performance targets related to efficiency (see Table 11).

Table 11: AgriInsurance Efficiency Performance Indicators, Targets and Results

Performance Indicator	Target	Result
Admin Costs as a % of Coverage	Less than 2%	0.87%
Admin Costs as a % of Premiums	Less than 12%	8.15%
Average Admin Cost per Contract	Less than $500	$397

Source: BRM January 2012 Performance Indicators Preliminary Detailed Report, March 27, 2012, AAFC

The AgriInsurance program has the highest satisfaction rating (related to administration) of all the BRM programs as reported by producers at 85% (AgriStability was 68% and Advance Payments Program was 81%).

To promote further efficiencies in the administration of the program a total of $8 million over four years was established to fund the Administration Research and Pilot Initiative Fund (ARPIF). To date take-up of the ARPIF has been limited. Of the $8 million budgeted to the ARPIF only $675,000 (8%) has been spent. According to interviews with provincial and federal officials, the larger multi-jurisdictional aspect of the ARPIF projects was particularly useful. These projects required at least three provinces to participate, thus fostering greater provincial collaboration. All of the provinces have been involved in one or more of the ARPIF projects.

ARPIF provided funding of up to 80% of the project costs. However, a number of interviewees pointed out this work also qualified under the Growing Forward Agreement for 60% federal cost-sharing. The ARPIF was, therefore, only reducing research costs by an additional 20%. For large projects this savings could be significant, but for the smaller

[36] See Annex E for descriptions of the various delivery models for agriculture insurance.

research projects it was seen as less attractive by provincial and territorial governments. The level of uptake suggests that there is not an ongoing need for a separate fund to support these types of initiatives. AAFC program officials have indicated that this initiative will not be renewed under Growing Forward 2.

Finally, PSRMP was found to be efficient in its delivery by an independent consultant. An independent study conducted by Prairie Research Associates in 2008 estimated that the PSRMP program used 3.5 FTEs to deliver $3 million annually in funding. Assuming an FTE at $100,000 (salary, overhead, and benefits), it cost AAFC approximately 12 cents to deliver every dollar of funding under the program. On this basis, PRA considered the program to be cost-effective and to compare well with other G&C programs administered by AAFC.

In conclusion, Canada's approach for providing agricultural insurance is efficient and meets the sector's needs.

3.3.2 There are a large number of low-value claims being submitted by provincial governments.

According to federal program staff, processing provincial government claims for premium or administration expenditures (verification and validation) involves the following seven steps and four different sections in the Programs Branch;

1. Claim verifications – BRM Finance Unit in Winnipeg;
2. Claim verification/validation – the PIRMD National Operations Unit;
3. Claim verification / validation – the PIRMD Actuarial Unit;
4. Second verification – BRM Finance Unit in Winnipeg;
5. Verification / recommendation – BRM Finance Unit in Winnipeg;
6. Verification / approval (Section 34) – PIRMD Director; and
7. Validation / payment (Section 33) – Corporate Finance

These procedures ensure that each claim is viewed from a comprehensive perspective given the materiality of the expenditure and coverage of the program.[37]

There are a large number of low-value claims being submitted by provincial governments. During the fiscal years 2009-10 and 2010-11, 585 claims were submitted to AAFC for

[37] Provincial claims for federal reimbursement must be submitted individually under four categories: AgriInsurance premiums, AgriInsurance administration, wildlife compensation, and wildlife administration. A province can only submit claims to the federal government for reimbursement related to producers who have already paid their AgriInsurance premiums or for wildlife claims that have already been paid to producers. The most frequent AAFC will accept claims for processing is monthly. See Annex F for the number of claims by province.

reimbursement. The value of claims ranged from $2.01 to over $40 million. As seen in Table 12 below, 244 (41.8%) provincial claims were under $25,000; 82 (14.0%) were under $1,000; 29 were under $100; and five claims were under $10 with the lowest value being $2.01. The claims under $10 may be those processed to verify the electronic bank transaction for direct deposit when an account is created.

Table 12: Processing of Provincial AgriInsurance Claims
March 1, 2009 to April 30, 2011

Value of Claim	Number	Percentage of Total (584)
Under $1,000	82	14.0%
$1,001 to $2,500	33	5.7%
$2,501 to $5,000	31	5.3%
$5,001 to $10,000	44	7.5%
$10,001 to $25,000	54	9.3%
Total	244	41.8%

Source: PINSS Report 22-Service Standards, PIRMD, AAFC
Note: AAFC processes separate claims for premium and administration costs for Production Insurance and compensation and administration costs for Wildlife.

Regardless of the claim size, whether $2.00 or $1 million, the federal government must ensure that accounting practices and procedures for processing claims (as described above) are maintained.

In conclusion, the AgriInsurance program is processing a high percentage of low value claims. Bundling these claims could further increase program efficiencies.

Recommendation # 3:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Assess whether bundling low value claims could increase program efficiencies; and report back to senior management on the findings.

Management Response and Action Plan:

Agree. An internal assessment will be performed and a report produced based on future discussions with provincial counterparts, internal finance officers and the Production Insurance National Statistical System (PINSS) officer. The findings will be reported back to the PINSS management committee.

Target: Through briefings or presentation, inform the Programs Branch ADM of the decision on the merit/feasibility of claim bundling by December 2013.

AIWG to be notified of any changes in direction by December 2013.

Responsibility: Director General, BRMPD

3.3.3 The AgriInsurance and PSRMP programs met their service standards related to the processing of claims and proposals.

Based on the program's established service standards, the AgriInsurance program is meeting its internal processing and verification targets (see Table 13).

Table 13: AgriInsurance Service Standards, Targets and Results*

Performance Indicator	Target	Result
Provincial claims processed within 30 days	Greater than 80%	81.4%
Provincial claims processed accurately	Greater than 98%	99%
Provincial proposals processed within 30 days	Greater than 90%	71%**
Provincial proposals submitted 60 prior to launch	Greater than 90%	98%
Federal holdback of claim	Equal to 0.00%	0.17%

Source: BRM Jan 2012 Performance Indicators Preliminary Detailed Report, March 27, 2012, AAFC
*Includes both AgriInsurance and Wildlife Compensation Program
**Four Saskatchewan proposals were held and approved together within 33 days – affecting the achievement of the target.

The program would have exceeded the service standards related to timeliness for processing provincial proposals had it not been for a decision by federal AgriInsurance officials to delay approval of all Saskatchewan proposals so they would be approved at the same time.

The PSRMP program met its service standard related to payments processed within 20 days as shown in table 14.

Table 14: PSRMP Service Standards, Targets and Results

Performance Indicator	Target	Result
Payments processed within 20 days.	80%	83%

Source: Program data, PIRMD, 2012
*no applications were received during the Growing Forward period

In conclusion, the AgriInsurance and PRSMP programs met their service standards.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

Agriculture insurance is an important tool for producers to manage production related risks. As market determined premiums would not be affordable for the majority of producers, the federal government's support for agriculture insurance is important to ensure stability in the agriculture sector.

AgriInsurance is aligned with the historic federal role for supporting the agriculture sector and the AAFC Strategic Outcome related to business risk management.

Given the increase in expenditures related to AgriInsurance premiums, governments should review subsidy levels to ensure alignment with current FPT policy objectives and priorities for the sector.

FPT governments are aware of the challenges related to calculating coverage of insurance plans for the forage sector. Efforts are ongoing to address these challenges in order to increase participation rates, and to clarify the interpretation of what constitutes a disaster under the AgriRecovery framework.

The needs of the livestock sector are not homogeneous. Tools to help the sector mitigate risks will require a combination of government supported and private sector-led insurance products.

Uptake of insurance by fresh fruit and vegetable growers appears to be low. Due to the nature of the marketing and production practices of the fresh fruit and vegetable industry, the development of production insurance plans will continue to be a challenge.

The Wildlife Compensation program has evolved in such a way that it has moved beyond its original policy rationale of protecting federally or provincially protected species. Further, the program does not align with the insurance principles outlined in the Canada Production Insurance Regulations.

The AgriInsurance program is meeting its outcomes. Further, Canada's approach for providing agricultural insurance is efficient and meets the sector's needs.

FPT governments have recognized that the successful uptake of new industry-led insurance-based products may require government support in the short-term to make the projects viable.

The AgriInsurance program is processing a high percentage of low value claims. Bundling these claims could further increase program efficiencies.
The AgriInsurance and PRSMP programs met their service standards.

4.2 RECOMMENDATIONS

The evaluation identifies the following three recommendations:

Recommendation #1:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Continue working with the livestock sector to develop relevant insurance plans, where appropriate (e.g. hogs), but also explore and report back to senior management on the viability of alternatives outside of the AgriInsurance program.

Recommendation #2:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Review the policy rationale for the Wildlife Compensation Program, including what constitutes the definition of “eligible wildlife”;
- Assess the feasibility of incorporating the production risks related to wildlife into existing production crop insurance plans; and
- Report back to senior management with findings and recommendations.

Recommendation #3:

The Federal-Provincial-Territorial AgriInsurance Working Group should:

- Assess whether bundling low value claims could increase program efficiencies; and report back to senior management on the findings.

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Annex C: Percentage Share of Premium Costs Over Time, Canada, 1960 to 2011.

Time Period	Percentage Share of Premium Costs		
	Federal (%)	Provincial (%)	Producer (%)
1960-1967	25	0	75
1968-1972	25	5-6	69-70
1973-1989	48-49	2-3	49-50
1990-1995	25	25	50
1996-2002	27-35	26-32	36-41
2003-2011*	33-35	26-27	39-40

Source: PINSS, AAFC
*Notes:

The current subsidy shares for AgriInsurance are the “double 60-40” formula: Producers pay 40 percent and governments together pay 60 percent, with the governments’ share divided 60-40 (federal-provincial), yielding 40-24-36 percentage shares for producers, provinces and the federal government.

The federal government’s share of premium costs also depends on the category of the AgriInsurance plan: 60% for catastrophic production loss coverage (infrequent, severe or multiple-year losses that occur on average once every 15 years); 36% for comprehensive coverage (basic AgriInsurance multi-peril coverage); and 20% for high-cost coverage (higher risk plans such as risk-splitting and coverage levels above 80%). This adjustment influences the actual percentage paid by governments below or above the agreed to percentage share.

Annex D: Species Whose Damage can be Compensated for by Province

Species	Province									
	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC
Antelope								X	X	
Any Bird of prey			X			X				
Beavers								X		
Bison								X		X
Black Bears			X			X	X	X	X	X
Blackbirds								X	X	
Bobcat						X				
Cougars							X		X	X
Coyote			X			X	X			X
Crow			X			X				
Deer							X	X	X	X
Ducks					X		X	X	X	X
Eagles						X			X	X
Elk						X	X	X	X	X
Fisher						X				
Fox			X			X	X			
Geese					X	X	X	X	X	X
Gophers								X		
Grizzly Bears									X	X
Grouse									X	
Hawk						X				
Lynx						X				X
Mink						X				
Moose							X	X	X	X
Mountain Sheep									X	X
Partridge									X	
Pheasant									X	
Ptarmigan									X	
Racoon						X				
Raven			X			X				
Rocky Mountain Goat									X	
Sandhill Cranes					X		X	X	X	X
Skunk						X				
Swans										X
Turkey									X	
Turkey Vulture						X				
Weasel						X				
Wild Boars								X		
Wolves						X	X		X	

Annex E: International Models for Providing Agricultural Insurance.

1. ***Public sector insurance*** – The government usually operates as the sole or monopoly insurer in the country. The government is also the main or exclusive reinsurer. (e.g. Canada)

2. ***Private sector insurance with no government support*** – Private commercial or mutual insurance companies actively compete for business and purchase reinsurance from international commercial reinsurers. (e.g. Australia)

3. ***Public-Private Partnerships*** – Agricultural insurance is implemented by the private sector with assistance from government, usually in the form of premium subsidies but also often through reinsurance. (e.g. Spain and Turkey).

Annex F: Number of AgriInsurance and Wildlife Compensation Claims by Province

Number of AgriInsurance and Wildlife Compensation Claims by Province March 1, 2009 to April 30, 2011										
	Claim Category									
Province	Less than $1K	$1K to $2.5K	$2.5K to $5K	$5K to $10K	$10K to $25K	No. of claims under $25K	$25 to $100K	$100K to $500K	Greater than $500K	Total No. of claims
Alberta	1	0	1	1	5	8	4	7	16	35
British Columbia	2	0	0	2	0	4	5	21	6	36
Manitoba	34	8	7	11	13	73	29	16	28	146
New Brunswick	1	1	2	0	0	4	6	3	2	15
Newfoundland and Labrador	0	1	1	4	3	9	2	0	0	11
Nova Scotia	10	3	3	0	4	20	14	4	0	38
Ontario	27	10	5	11	2	55	4	18	24	101
Prince Edward Island	0	0	1	1	1	3	5	4	7	19
Quebec	7	5	6	7	15	40	9	16	23	88
Saskatchewan	0	5	5	7	11	28	13	21	33	95
Total	82	33	31	44	54	244	91	110	139	584
% of Total Claims	14.0	5.7	5.3	7.5	9.3	41.8	15.6	18.8	23.8	100.0

Source: PINSS – Report 22, April 27, 2012
Note: Does not include submissions without an amount recorded.

Annex G: Recommendations and Management Response and Action Plan

Recommendations	Management Response and Action Plan (MRAP)
1. The Federal-Provincial-Territorial AgriInsurance Working Group should: - Continue working with the livestock sector to develop relevant insurance plans, where appropriate (e.g. hogs), but also explore and report back to senior management on the viability of alternatives outside of the AgriInsurance program.	Agree. The department will continue to support the efforts of the provinces in working with the industry to develop livestock plans. Directives designed to ensure the consistency in the plans implemented across the country will be formalized through the Multilateral Framework Agreement and approved by FPT ADMs. These guidelines will provide direction for the interaction with the industry on the fundamental questions around the level of coverage and cost sharing governments are prepared to provide through the livestock plans. The Department will proceed with the development of programming under Growing Forward 2 to provide assistance to industry in the development of private sector risk management tools for livestock producers' production related risks. A progress report outlining the status of new livestock plans developed and/or implemented and future initiatives proposed will be provided to FPT ADMs for approval. Targets: • Approval of the livestock directives by FPT ADMs – March 2013 • Approval of GF2 programming to explore private sector alternatives by March 2013 • Progress report to ADMs – December 2013 Responsibility: Director General, BRMPD
2. The Federal-Provincial-Territorial	

AgriInsurance Working Group should: - Review the policy rationale for the Wildlife Compensation Program, including what constitutes the definition of "eligible wildlife"; - Assess the feasibility of incorporating the production risks related to wildlife into existing production crop insurance plans; and - Report back to senior management with findings and recommendations.	Agree. The Department is working with provinces on a comprehensive review of the Wildlife Compensation Program, including the policy rationale and the criteria for defining eligible species. The review will include a report/presentation on the feasibility of incorporating wildlife related risks into AgriInsurance products along with any recommendations regarding eligible species. Target: Report to FPT ADM's with recommendation by December 2013 Responsibility: Director General BRMPD
3. The Federal-Provincial-Territorial AgriInsurance Working Group should: - Assess whether bundling low value claims could increase program efficiencies; and report back to senior management on the findings.	Agree. An internal assessment will be performed and a report produced based on future discussions with provincial counterparts, internal finance officers and the Production Insurance National Statistical System (PINSS) officer. The findings will be reported back to the PINSS management committee. Target: Through briefings or presentation, inform the Programs Branch ADM of the decision on the merit/feasibility of claim bundling by December 2013. AIWG to be notified of any changes in direction by December 2013. Responsibility: Director General, BRMPD