

Jurisdictional Scan of Agricultural Cost Share and Support Programs

A part of the Hullcar Situation Review Nutrient Management Practices - Technical Report

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1.0 Introduction/Scope

This section reviews the results of a jurisdictional scan investigating agricultural best management practices currently recommended, support programs, government incentives available to producers, and cost share programs across jurisdictions.

The jurisdictions reviewed include:

- Canada: Alberta, Saskatchewan, Manitoba, Ontario, Quebec, and Nova Scotia.
- United States: Washington, Pennsylvania, and California.
- Europe: UK, Denmark, and the Netherlands.

Information on the jurisdictions was found through web-based public government sources that contained related information on the regulations, beneficial management practices (BMPs), and programing present. Relevant background information was also gathered from these sources when necessary to provide context. The information used in the jurisdictional scan is based on the most up to date publicly available data present at the time. This section has been included to provide information on how other jurisdictions are approaching agricultural nutrient management and drinking water protection with the consideration of a broad spectrum of beneficial management practises

2.0 Review of Current Agricultural Cost Share and Support Programs by Jurisdiction

2.1 Canada

Each province divides the general cost share EFP program provided by the GF2 Initiative which supplies funding to improve producer's BMPs. Each province may promote this cost share program differently and may also focus on different BMPs to fund, but all still work under the GF2 program. Additionally, each province has provided programs external to GF2 that assist producers' ability to meet regulation standards.

2.1.1 Alberta

Environmental Stewardship & Financial Aid

Environmental Farm Plan

The Environmental Farm Plan (EFP) is a voluntary, whole farm, self-assessment tool that helps producers identify their environmental risks and develop plans to mitigate those identified risks. Alberta, with the help of the GF2 program, is working together with farmers committed to environmental stewardship. The Agricultural Research and Extension Council of Alberta (ARECA) deliver the Alberta Environmental Farm Plan (EFP) on behalf of the Government of Alberta. This program is similar to BC's EFP program as it promotes and funds certain BMPs while building a positive relationship with producers.

Water Quality Programs

Irrigation Efficiency

This program helps producers invest in new or upgraded low-pressure centre pivot (LPCP) irrigation equipment for their operations, improving the efficiency of energy and water use on Alberta farms.

2.1.2 Saskatchewan

Environmental Stewardship & Financial Aid

Farm Stewardship Program

The Farm Stewardship Program (FSP) provides eligible Saskatchewan producers with financial assistance to implement beneficial management practices (BMPs) to help maintain or improve the quality of soil, water, air, or biodiversity resources. This program is funded through the GF2 program. This is similar to BC's cost share EFP program that is also funded by GF2.

A BMP is defined as any agricultural management practices which:

- Ensures the long-term health and sustainability of land-related resources used for agricultural production;
- Positively impacts the long-term economic and environmental viability of agricultural production; and
- Minimizes negative impacts and risk to the environment.

Water Quality Protection Programs

The Farm and Ranch Water Infrastructure Program

The Farm and Ranch Water Infrastructure Program supports secure water supplies in Saskatchewan. Funds are available for projects designed to expand irrigated acres, grow the livestock industry, encourage rural economic activity, and mitigate the impact of drought.

2.1.3 Manitoba

Training & Education

Manitoba provides numerous guides and learning tools that explain the benefits of proper soil and water management. An example of this can be found in their "Tile Drainage Webinar Series – Red River Basin Commission" which explains the purpose and impacts of proper drainage.

Environmental Stewardship & Financial Aid

Growing Assurance - Environment

This program provides financial assistance to agriculture producers and agribusinesses for adoption of targeted beneficial management practices (BMPs) that improve the environmental sustainability of their operations.

Manure Management Financial Assistance Program

This program provides financial assistance to help small pig operations (less than 300 animal units) build additional manure storage capacity to eliminate winter application of manure; help all sizes of pig operations repair manure storage structures to reduce the risk of leakage; and

help all sizes of pig operations install manure treatment systems to meet the soil test phosphorus thresholds.

Water Quality Programs

Onsite Wastewater Management Systems Program (OWMS)

The purpose of the program is to administer the <u>Onsite Wastewater Management Systems</u> Regulation pursuant to <u>The Environment Act.</u> A team comprised of Environment Officers and a Wastewater Management Specialist has been established for this purpose. Team members are regionally based to provide local coverage, and centrally coordinated to ensure consistent delivery of the program and ensure that water resources are being protected.

2.1.4 Ontario

Environmental Stewardship & Financial Aid Programs

Canada-Ontario Environmental Farm Plan (EFP)

Environmental Farm Plans are assessments voluntarily prepared by farmers to increase their environmental awareness. To complete an EFP, farmers attend an EFP educational workshop and review their farm operation using the self-assessment EFP workbook. The EFP workbook consists of 23 risk assessment modules relating to farm activities in three general areas: the farmstead, farming practices and natural areas. Through the EFP process, farmers will highlight their farm's environmental strengths, identify areas of environmental concern and set realistic action plans with timetables to improve environmental conditions. Farmers may choose to submit their action plan for an independent review

Conservation Authority Funding Programs

Conservation authorities are local watershed management agencies. They deliver services and programs that protect and manage water and other natural resources in partnership with government, landowners and other organizations. Many conservation authorities offer funding and technical assistance to farmers who adopt best management practices related to water quality, nutrient management, fish and wildlife habitat and woodlot management.

2.1.5 Quebec

Environmental Stewardship & Financial Aid Programs

Consulting Services Program

The objective of the Consulting Services Program (PSC) is to promote the competitiveness and sustainability of Québec's agricultural and agri-food businesses by enabling more of them to receive, through the Agriconseils networks, a wider range of services to support their managers in the conduct of their affairs.

To achieve this goal, the Program focuses on:

- The adaptation of services to the specific needs of agricultural and agri-food enterprises and the strengthening of their autonomy
- The multidisciplinary nature of the approach adopted by the latter in their use of consulting services.

The financial assistance provided under the Program allows agricultural and agri-food businesses to benefit, on an individual basis, from a variety of services:

- Diagnostics
- Formulation of targeted recommendations to be incorporated into an action plan
- Accompaniment and follow-up.

Assistance is also provided to groups of companies that pursue collective objectives, in particular the objectives of knowledge transfer and sharing.

Prime-Vert

Prime-Vert is an agri-environmental support program designed to help farms meet the challenges of protecting the environment. This program is in association with the GF2 initiative.

This program aims to:

Promote and disseminate good agricultural practices

- Support farms to adopt environmentally friendly production methods in a way that preserves resources and meets the expectations of citizens and consumers
- Encourage collective initiatives to address problems that are detrimental to air quality, soil health, biodiversity or human health, as well as climate change issues.

The main lines of action prioritized by the program are:

- Reducing the risks associated with the use of pesticides
- The adoption of effective soil conservation practices
- The conservation of biodiversity.

2.1.6 Nova Scotia

Environmental Stewardship & Financial Aid Programs

Homegrown Success Program

The Nova Scotia Department of Agriculture (NSDA) and Agriculture and Agri-Food Canada (AAFC) entered into a five-year (2013-2018) bilateral agreement to implement *Growing Forward 2*, the policy framework for agriculture. Under this program, producers will be able to maintain and transition into using BMP's as it will provide funding and support through cost share.

This program focuses on 3 main thematic areas:

- 1. Innovation
- 2. Competitiveness and Market Development
- 3. Adaptability and Industry Capacity

2.2 Additional Information on Agriculture Cost Share Incentive and Support Programs Outside of Canada

2.2.1 United States (Washington, Pennsylvania, California)

Sustainable Agriculture Research and Education Program

This program functions through competitive grants conducted cooperatively by farmers,

ranchers, researchers and ag professionals to advance farm and ranch systems that are profitable, environmentally sound, and good for communities.

Source Water Protection Program

The Source Water Protection Program (SWPP) is a joint project with the U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) and the National Rural Water Association (NRWA), a non-profit water and wastewater utility membership organization. The SWPP is designed to help prevent pollution of surface and ground water used as the primary source of drinking water by rural residents.

2.2.2 Europe (UK, Denmark, Netherlands)

Farm Business Improvement Scheme - Capital Scheme

The Farm Business Improvement Scheme (FBIS) is a package of measures aimed at improving the competitiveness and sustainability of the farming sector. FBIS is an important part of the Rural Development Programme (RDP) 2014 to 2020 and is being rolled out in a phased way. The FBIS Capital Scheme opened on 31 October 2016.

The Capital Scheme has two separate tiers – Tier 1 and Tier 2. The grant rate of funding for both tiers in the Scheme is 40% of eligible costs. Two tranches of the Scheme are planned in the initial phase. The second tranche is planned for autumn 2017. This will allow local producers to invest in nutrient management and water quality protection practices. Specifically, they will be able to improve manure management and water management systems on site.

Compensation for Agricultural Nature Management

Farmers in the Netherlands who manage their farmland environmentally friendly can apply for compensation. This can be done every year, via the Agri Nature Management Scheme (SNL). This incentivises proper nutrient management and water protection practices.

Agri-Environment

The Environmental Farming Scheme (EFS) in the UK will offer participants a 5-year agreement to deliver a range of environmental measures and will have three levels:

- a higher level, primarily for environmentally designated sites and other priority habitats
- a wider level to deliver benefits across the countryside, outside of environmentally designated areas

 a group level to support co-operative action by farmers in specific areas such as a river catchment

3.0 Review of Agricultural Best Management Practices by Jurisdiction

This section reviews information on the BMP's provided and recommended by their local Jurisdiction. These Jurisdictions were in scope of this review:

- Alberta
- Saskatchewan
- Manitoba
- Ontario
- Quebec
- Nova Scotia

These Jurisdictions were out of scope of this review but were included to provide additional information:

- United States Washington, California, Pennsylvania
- Europe UK, Netherlands, Denmark

3.1 Canada

All the Canadian provinces reviewed use a variation of the EFP program with cost shared BMPs. Funding of specific BMPs varies from province to province, and from year to year, but the overall BMP categories which link to nutrient management are similar. This cost share program is funded federally by the Growing Forward 2 initiative that allows individual provinces to manage the allocation of funds themselves.

3.1.1 Alberta

Provincially Recommended BMPs

There are 26 categories of BMPs available in Alberta; each category has a number of activities within it. This program is provided through the Growing Forward 2 (GF2) and the Environmental Farm Plan (EFP) which has similar programs in B.C.

The following relate to nutrient management and water quality protection. These categories include:

- improved manure storage and handling
- manure treatment

- manure land application
- farmyard runoff control
- relocation of livestock confinement facilities
- product and waste management
- water well management
- land management for soils at risk
- improved cropping systems
- irrigation management
- nutrient management planning
- grazing management planning
- soil erosion control planning
- irrigation management planning

3.1.2 Saskatchewan

Saskatchewan defines a BMP as any agricultural management practices which:

- Ensures the long-term health and sustainability of land-related resources used for agricultural production;
- Positively impacts the long-term economic and environmental viability of agricultural production; and
- Minimizes negative impacts and risk to the environment.

Provincially Recommended BMPs

The Agri-Environmental Group Plans are also a cost share programs provided by GF2. Nutrient management and water quality protection BMP's currently accessible through an Agri-Environmental Group Plans are:

- Protecting High Risk Erodible and Saline Soil
- Multi-Producer Erosion Control
- Water Flow and Erosion Control
- Fencing to Protect Surface Water
- Relocation of Livestock Confinement
- Farmyard Run-off Control

3.1.3 Manitoba

Manitoba has a similar BMP program to British Columbia and the rest of the provinces, Growing Assurance - Environment help farmers improve the environmental sustainability of their operations with funds for specific beneficial management practices (BMPs) that support the Manitoba government's strategy to reduce the risk of nutrient loss to water.

Provincially Recommended BMPs

Cost shared funding is available to producers to help implement the following nutrient management and water quality protection BMPs as identified in their EFP action plan:

- Increased manure storage capacity
- Improved manure storage (repair)
- Manure treatment
- Farmyard runoff control
- Relocation of livestock confinement
- Extensive wintering of livestock

3.1.4 Ontario

Under the Canada-Ontario Farm Stewardship Program (COFSP) Ontario agricultural producers who satisfy the program eligibility criteria may be eligible to apply to COFSP to gain cost share for the implementation of environmental projects identified in their Environmental Farm Plan (EFP) Action Plans.

Provincially Recommended BMPs

Supported nutrient management and water quality protection BMPs are:

- Improved Manure Storage and Handling
- Manure Treatment
- Manure Land Application
- In Barn Improvements for Water Efficiency
- Farmyard and Horticultural Facilities Runoff Control
- Product and Waste Management
- Water Well Management
- Precision Agriculture
- Improved Cropping Systems
- Cover Crops
- Nutrient Recovery from Waste Water

- Irrigation Management
- Farm Water Treatment Equipment for Agricultural Use

3.1.5 Quebec

Prime Vert is the cost share program in Quebec that allows farmers to improve their management practices. It outlines similar nutrient management and water quality protection BMPs to other provinces' Environmental Farm Plans.

Provincially Recommended BMPs

The BMPs listed by Prime Vert are:

- Development of buffer zones
- Expansion and development of soil conversation strategies
- Organic residue and liquid effluent management
- Farm agri-environmental intervention
- Aeration of irrigation ponds
- Development of alternative bovine and porcine management
- Structures to house and process animal waste and biogas

Prime Vert also includes plans to assist and develop basin-scale water management projects.

3.1.6 Nova Scotia

Homegrown Success Program is Nova Scotia's cost sharing program for farmers in that region. It is also similar to other provinces' EFP programs in place. It allows farms to better manage their farms by providing necessary resources.

Provincially Recommended BMPs

The nutrient management and water quality protection BMPs covered by this program are:

- Manure storage and handling
- Manure composting
- Liquid and solid manure applications
- Farmyard runoff control
- Water well protection and management
- Irrigation management & sustainable water practices
- Water management planning
- Soil management
- Nutrient management planning
- Waste management

3.2 United States (Washington, Pennsylvania California)

Government Recommended BMPs

The majority of BMPs found in California, Pennsylvania, and Washington that are related to nutrient management and water quality protection can be summarized under these categorizes:

- Layout and site development
- Cover crops, tillage practices, and erosion controls
- Record Keeping
- Manure storage and stacking areas
- Pasture management
- · Concentrated animal area management
- Tillage practices

These BMPs are similar to those recommended in Canadian provinces as they are implemented through the different levels of government. The specifics of the funding distribution and exact program details are out of scope for this review.

3.3 Europe (UK, Denmark, Netherlands)

Government Recommended BMPs

In Europe many of the BMPs are targeted towards nitrogen and phosphorus management. The majority of the BMPs found in the UK, Denmark, and Netherlands that relate to nutrient management and water quality protection can be categorized under these headings:

- Improving manure processing
- Adjusting feed strategies and techniques
- Improving drainage systems and irrigation systems
- The increased and improved establishment of buffer zones
- Alternative excess manure use and management
- Soil management and tillage practices
- Improved manure application rates and timing
- Use of cover crops, catch crops, and green manure cropping

These BMPs are similar to those recommended in Canadian provinces as they are implemented through the different levels of government. The specifics of the funding distribution and exact program details are out of scope for this review.

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