

AGRICULTURE STEWARDSHIP PROGRAM

PROGRAM OBJECTIVE

The Agriculture Stewardship Program (ASP) is provided under Growing Forward 2, a Federal-Provincial-Territorial Initiative. The commitment of the Growing Forward 2 Program to Canada's agricultural sector, through the ASP, helps ensure that the agriculture sector contributes to society's priorities of clean soil, water and air resources and improved biodiversity.

PROGRAM DESCRIPTION

The ASP offers technical and financial support to encourage producers to voluntarily implement beneficial management practices (BMPs) that reduce environmental risk and enhance Prince Edward Island's soil, water, air and biodiversity resources.

The ASP is funded by the federal and provincial governments and is delivered by the Prince Edward Island Department of Agriculture and Fisheries.

The ASP is divided into 6 program categories:

1. Soil Management
Includes: Erosion control structures, crop residue management, primary residue tillage, furrow damming, strip cropping.
2. Storage Management
Includes: On-farm pesticide storage, on-farm silage storage, improved manure storage, covered feedlots (impermeable base and roof), on-farm fuel storage (double walled tanks only).
3. Buffer Zone/Riparian Management
Includes: Alternative livestock watering systems, improved farm machinery stream crossings, fencing and livestock stream crossings, power to remote watering sites
4. Water Management
Includes: agricultural water quality, on farm water use efficiency, well water management, improved irrigation efficiency, sustainable agriculture water supply
5. Integrated Pest/Nutrient Management
Includes: Nutrient management planning, winter catch crop following either row crop or disease suppressant rotational crop and cranberry bog enhancement.
6. Energy Management
Includes: On farm energy efficiency

ELIGIBLE APPLICANTS

Any agricultural land holders that have valid, up to date Environmental Farm Plans (EFP) completed on land that is in production.

ELIGIBLE ACTIVITIES

BMPs that have been identified in the applicant's EFP Action Plan.

The Project Advisor must approve the plan or design that is to be used prior to commencement of the project. Labour and the use of the applicant's equipment may be eligible for cost sharing and included in the total cost of the project. Contact your Project Advisor for more information. In-kind work must be specified and approved at time of application. For all other eligible and ineligible expenses please see individual BMP category guidelines beginning on page 7.

ASSISTANCE

Financial assistance:

The maximum allowable funding per farming operation is \$75,000 over the 5 year Growing Forward 2 program (2013-2018).

The ASP will operate on a cost share as well as a per acre funding basis. Funding levels vary depending on type of work and nature of project.

Please see the summary chart (next page) or the individual BMP guidelines (page 7) for breakdown of funding per category.

Technical assistance

ASP project advisors provide technical assistance to applicants of the program.

Technical assistance provided includes development and implementation of::

- Soil conservation/erosion structures
- Storage facilities (pesticide, fuel, manure, feedlot and on-farm silage)
- Livestock watering and fencing
- Stream crossings
- Water management and efficiencies
- Nutrient management
- Advice on catch crops and rotational crops related to pest management
- Energy efficiencies

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The Agriculture Stewardship Program (ASP) offers technical and financial support to encourage producers to voluntarily implement beneficial management practices (BMPs) that reduce environmental risk and enhance Prince Edward Island's soil, water, air and biodiversity resources.

BMP Category	Cost Share	Eligible CPEIASP 2017/2018 BMP	Project Advisor	Category Funding Cap
1. Soil Management	66%	1.1 Erosion control structures	Tyler Wright Josh Dillman	\$50,000
	\$25 per acre up to \$3,000 per year	1.2 Crop residue management-25% cover Immediately after planting		\$6,000
	\$15 per acre up to \$2,500 per year	1.3 Primary residue tillage-spring or fall 20% coverage		\$5,000
	\$15 per acre up to \$3,000 per year	1.4 Furrow damming		\$5,000
	\$20 per acre	1.5 Strip cropping		\$2,000
2.Storage Management	50%	2.1 On-farm fuel storage	George Piercey	\$7,000
	50%	2.2 On-farm pesticide storage		\$8,000
	30%	2.3 On-farm silage storage		\$25,000
	50%	2.4 Improved manure storage		\$50,000
	50%	2.5 Covered feedlot - impermeable base and roof for minimizing livestock runoff		\$30,000
3.Riparian / Buffer Zone Management	50%	3.1 Alternate watering systems	Tyler Wright	\$8,000
	50%	3.2 Improved stream crossings for farm machinery		\$25,000
	30%	3.3 Power to remote sites for watering systems		\$4,500
	66%	3.4 Fencing and livestock stream crossings		\$15,000
4.Water Management	50%	4.1 Agricultural water quality	Josh Dillman	\$15,000
		4.2 On-farm water use efficiency		\$15,000
	30%	4.3 Improved irrigation efficiency		\$15,000
		4.4 Sustainable agricultural water supply		\$15,000
	75%	4.5 Well water management		\$6,000
5. Integrated Nutrient/Pest Management	50%	5.1 Nutrient management planning	Kyra Stiles Sebastian Ibarra	\$3,000
	\$25 per acre up to \$1,000 per year	5.2 Winter catch crop following row crop (A) or Disease suppressant rotational crop (B)		\$2000
	\$500 per acre	5.3 Bog enhancement	Chris Jordan	\$3,000
6.Energy Management	30%	6.1 On-farm energy efficiency	Josh Dillman	\$10,000

The maximum allowable funding per farming operation is \$75,000 over the 5 years of the Growing Forward 2 program.

BMP project descriptions can be found online at www.peifarm.ca.

For further information contact:

Charlotte Campbell, ASP Administrator
PEI Department of Agriculture and Fisheries
Tel: 902-894-0340
Fax: 902-368-4857
E-mail: chmcampbell@gov.pe.ca

APPLICATION AND APPROVAL PROCESS

The applicant should contact a Project Advisor to discuss the proposed project.

Before starting the project or incurring expenses, the applicant must complete and submit a Project Application Form with all necessary information and documentation. A detailed application form is available from the ASP Administrator and at www.peifarm.ca

All applications will be reviewed by the ASP Administrator. Eligible projects will be reviewed by an internal body which will determine approval or denial. The decision of this body will be conveyed in writing to the applicant.

The EFP Coordinator verifies that the applicant's EFP is up to date and indicates whether the project requested is a priority of the applicant's EFP.

The applicant's category funding caps are reviewed to ensure funding is available for project. The ASP Administrator approves the project in writing to the applicant and provides appropriate Construction Guidelines, where applicable.

CLAIMING PROCESS

Upon completion of the project the applicant must submit a claim form with appropriate documentation (original invoice and proof of payment, i.e. official receipts, cancelled cheques) to the ASP Administrator.

The Project Advisor completes a final site visit if required, reviews claimed expenses, and recommends the claim for payment. The Project Advisor ensures that all work meets program and Canadian Environmental Assessment Act construction guidelines.

The claim form is sent out with the producer's approval letter or it, along with details of required supporting documentation, is available from the ASP Administrator. Any in-kind work performed will be accounted for on a separate sheet sent out with the approval letter. Rates of labour and equipment are calculated by the Prince Edward Island Department of Agriculture and Fisheries and added to the claim accordingly.

In-kind work will only be accepted with a claim if the work was included in original estimates and approved by the ASP Administrator.

Claims must be received on or before the date indicated in a producer's approval letter unless adjustment is made by the ASP Administrator or the Project Advisor.

TERMS AND CONDITIONS

- An EFP must have been completed/updated within the past five years to be valid. For more information on completing or updating an EFP contact the EFP Coordinator at the PEI Federation of Agriculture (902) 368-7289. The EFP Coordinator must certify that the BMPs for the incentive being requested has been identified in the applicant's EFP Action Plan in order to qualify for ASP assistance.
- The maximum federal contribution under ASP is \$75,000 per applicant over the five year term of the program.
- Funds will be available between April 1, 2013 and March 31, 2018 or until they are completely allocated, whichever comes first.
- Expenditures incurred prior to submission of project application are not eligible. Project expenses incurred after receipt of project application, up to the date of final written approval, are at the applicant's risk.
- Any physical work funded through the ASP must be appropriately managed and maintained by the applicant for a minimum of 15 years.
- Work must be completed to an approved standard as outlined in BMP Codes of Practice which are available through the ASP Administrator or Project Advisor.
- Personal information is collected under Section 31(c) of the Freedom of Information and Protection of Privacy Act R.S.P.E.I. 1988 c. F-15.01 as it relates directly to and is necessary for the ASP. It will be used for determining eligibility for program assistance and will be shared with the Canada Revenue Agency regarding the taxable benefit and Agriculture and Agri-Food Canada regarding claims, audits and evaluations of this program.
- Program guidelines and application forms may be revised at any time throughout the life of the program, at the discretion of the PEI Department of Agriculture and Fisheries.
- Project approval will be based on available funding and will be at the PEI Department of Agriculture and Fisheries' discretion. As such, not all eligible projects will be approved.
- Recipients of funding under this program are consenting to the public release of their name, the amount of funding received, and the general nature of the project.

TERMINATION

This program is effective April 1, 2013 and will terminate on March 31, 2018.

This program may be altered or discontinued without notice by the Minister of Agriculture and Fisheries.

ADMINISTRATION

This program is administered by the Prince Edward Island Department of Agriculture and Fisheries.

CONTACT

Charlotte Campbell, ASP Administrator
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E-mail: peiextension@gov.pe.ca

1. SOIL MANAGEMENT

Reducing the amount of soil transported by runoff decreases the potential of contamination of surface waters and improves soil quality. Employing strategies to increase the amount of crop residue left on the surface after primary and secondary tillage has proven to prevent soil detachment by reducing the impact of rainfall on weakly aggregated soils.

For further information please contact:

Tyler Wright at 902-314-0789, tmwright@gov.pe.ca
Josh Dillman at 902-314-0783, jdillman@gov.pe.ca

FUNDING ASSISTANCE:

Program	Funding Level	Maximum Funding
1.1 Erosion Control Structures	66%	\$50,000
1.2 Crop Residue Management	\$25 per acre	\$3,000 per year up to \$6,000
1.3 Primary Residue Tillage	\$15 per acre	\$2,500 per year up to \$5,000
1.4 Furrow Damming	\$15 per acre	\$3,000 per year up to \$5,000
1.5 Strip Cropping	\$20 per acre	\$2,000

RESPONSIBILITIES OF THE APPLICANT:

- The applicant must verify BMP project location and requirements with the contractor prior to construction.

- This BMP project work cannot be performed until the application is received by the ASP Administrator and the applicant discusses the work plan with a Project Advisor.
- The applicant is responsible for obtaining all required licenses, permits, approvals or authorizations and for complying with all applicable municipal, provincial and federal legislation.
- Applicants must submit all Property Identification Numbers (PIDs) related to project work.
- Provincial Field Identification Numbers (FID's) for BMPs 1.2, 1.3, and 1.4 are required.
- The applicant must perform recommended farm management practices regarding the timing of and application rates of manure, commercial fertilizers and pesticides to avoid surface and groundwater contamination.

1.1 EROSION CONTROL STRUCTURES

Installation of erosion control structures reduces topsoil loss due to erosion and prevents the contamination of surface and/or ground waters from materials bound to the eroded soil particles.

Eligible Expenses:

- Diversion terrace, grassed waterway and farmable berm construction
- Field consolidation work
- Erosion control matting, silt fencing and energy dissipaters
- Seedbed preparation, fertilizer, lime and grass seed
- Surface inlets and culverts
- Silt retention ponds

Control Structure Requirements:

- All construction work must be completed by September 10.
- Erosion control structures are to be seeded immediately after construction with a recommended grass/cereal mix and then immediately stabilized with erosion control matting as prescribed.
- Construction work must be done to an approved standard. A representative of the PEI Department of Agriculture and Fisheries will provide technical support with regards to project design and layout in the field, provide guidance to the contractor, and inspect the completed project.

Responsibilities of Applicant:

- The applicant must receive permission from adjoining landowner(s) prior to discharging surface or subsurface drainage across property boundaries.
- The applicant must adhere to the Construction Guidelines provided by Project Advisor for erosion control structures to mitigate potential environmental risks.
- All works constructed through this program will be maintained and properly managed for a minimum 15 year period.

- The applicant must repair any damage that might occur to the erosion control structures and provide adequate fertility for grasses.

1.2 CROP RESIDUE MANAGEMENT

This BMP is intended to increase the amount of the previous crop residue on the surface after the planting operation.

Eligible Expenses:

- Acreage in agricultural production that has 25% or more residue cover immediately after planting crops (i.e. established with minimal tillage) and before any other possible tillage operations, such as inter row cultivation.
- Acreage in agricultural production that has been established by a no-till seeding drill – no residue levels are measured in this instance.

Note: Recipients will not be eligible for both the primary residue tillage support and crop residue management support programs in any one field for establishing a given crop.

Responsibilities of Applicant:

- The Project Advisor or representative from the PEI Department of Agriculture and Fisheries requires a site visit after the no-till or minimum till operation is completed and before any other possible tillage operations such as inter row cultivation.

1.3 FALL OR SPRING PRIMARY RESIDUE TILLAGE

This BMP is intended to decrease the use of fall mouldboard ploughing which leaves less than 2% residue on the surface.

Eligible Expenses:

- Field(s) upon which primary tillage has been performed on forages or corn must exhibit average crop residue levels of a minimum of 20% after the tillage operation. Residue levels will be determined by the PEI Department of Agriculture and Fisheries.

Responsibilities of Applicant:

- The applicant must inform the Project Advisor immediately after primary tillage is performed on project field(s) so residue levels can be measured.

1.4 FURROW DAMMING

The utilization of a furrow damming attachment during the potato hilling operation has been shown to decrease soil erosion from the field, especially during the period prior to full canopy coverage. Also, improvements in soil moisture levels have been documented with the use of furrow dams.

Eligible Expenses:

- Usage of equipment on active potato land.

Responsibilities of Applicant:

- The applicant must inform the Project Advisor immediately after furrow damming is complete.

1.5 STRIP CROPPING

Strip cropping combines the soil and moisture conservation properties of cross slope farming with the soil building advantages of a crop rotation and is effective in reducing soil losses.

Eligible Expenses:

- Acreage in agricultural production with crops planted in a strip configuration

2. STORAGE MANAGEMENT

Improper storage and handling of agricultural products can pose a risk to human health and the environment by contamination of soils, surface, and ground water. It is important to reduce risk during storage of agricultural products by minimizing the quantity that is stored on-farm and by preventing spills; this can have a significant impact on the quality of drinking water and on aquatic habitats.

For further information contact:

George Piercey, at 902-314-0790, or gapiercey@gov.pe.ca

FUNDING ASSISTANCE:

Program	Funding Level	Maximum Funding
2.1 - Fuel Storage	50%	\$7,000
2.2 - Pesticide Storage	50%	\$8,000
2.3 - Silage Storage	30%	\$25,000
2.4 - Manure Storage	50%	\$50,000
2.5 - Covered Feedlot	50%	\$30,000

RESPONSIBILITIES OF THE APPLICANT:

- The applicant must adhere to the Construction and Management Guidelines provided by the PEI Department of Agriculture and Fisheries during construction. These will be provided with project approval.
- It is the applicant's responsibility to ensure that individual farm insurance requirements have been met.
- The applicant is responsible for obtaining required licenses, permits, approvals of authorizations and for complying with all applicable municipal, provincial and federal legislation.
- All works constructed through this program will be maintained and properly managed for a minimum 15 year period.

2.1 ON-FARM FUEL STORAGE

Eligible Expenses:

- Double walled tanks
- Dispensing equipment
- Stable platform
- Electrical costs associated with dispensing equipment
- Site preparation

2.2 ON-FARM PESTICIDE STORAGE

Eligible Expenses (may not be limited to):

- Site preparation
- Materials, labour, and equipment rentals
- Electrical costs (must be installed by licensed electrical contractor)
- Approved, pre-built portable structures

Responsibilities of Applicant:

- The applicant must inform the local fire chief with the location of the pesticide storage facility and an estimate of the maximum quantity of pesticides that will be held on the farm at any one time. An inventory control system must be put in place to enable the inventory to be determined after a fire has occurred. A copy of this inventory is to be maintained in a separate location.
- The applicant must post emergency numbers by the nearest phone for the Fire Department/Police/Ambulance (911), Poison Control Centre

2.3 ON-FARM SILAGE STORAGE

Eligible Expenses:

- Engineering design work
- Site preparation
- Impermeable base and walls
- Effluent containment facility
- Associated labour

Ineligible Expenses:

- Loading/unloading equipment

2.4 IMPROVED MANURE STORAGE

Eligible Expenses (may not be limited to):

- Engineering fees
- Site preparation
- Solid manure storages with either a roof or separate liquid containment
- In-ground or above ground liquid concrete tanks

- Concrete storage below slotted floors
- Manure storage covers

Ineligible Expenses:

- Concrete slats
- Manure transfer systems

Responsibilities of Applicant:

- The applicant must comply with the Guidelines for Manure Management for Prince Edward Island with respect to storage, handling and spreading of manure.

2.5 COVERED FEEDLOT

Impermeable base and roof for minimizing livestock runoff.

Eligible Expenses:

- Engineering fees
- Site preparation
- Material and labour excluding the area under feed bunks or alleys
- Material and labour excluding the area over feed bunks or alleys

Responsibilities of Applicant:

- The applicant must provide separate invoices for: site preparation, installed floor, and roof construction when submitting a claim.
- The applicant must ensure that all works constructed through this program will be maintained and properly managed for a minimum 15 year period.
- The applicant must ensure that all livestock are confined in the facility for the duration of the year that they are in a feedlot environment. Failure to do so will result in a requirement to fully repay the financial assistance that was received.
- The applicant must ensure that manure removed from the facility is not stockpiled adjacent to the covered feedlot within the farmstead. It must be properly stockpiled in a field as prescribed in the Guidelines for Manure Management for PEI. Failure to do so will result in a requirement to fully repay the financial assistance that was received.
- Stockpiles are to be located at upper slope locations where they cannot be subjected to upslope runoff and they cannot be placed in a location that is subject to ponding.
- Stockpiles are to be located a minimum of 300 meters (1000 feet) from a public water source.
- Stockpiles are to be located a minimum of 90 meters (300 feet) from all watercourses, lakes, ponds, natural wetlands, residences and residential wells.
- Stockpiles are to be located in an area that will not result in runoff to highway ditches.

3. BUFFER/RIPARIAN ZONE MANAGEMENT

Livestock and machinery access to riparian zones and watercourses can result in environmental problems such as stream bank erosion, loss of water quality, degraded fish and wildlife habitat, and bacterial and nutrient loading in streams and estuaries. Poor water quality can further lead to health problems and lower production levels from cattle and other livestock. Fenced riparian zones and stream crossings are important tools in managing these areas.

For further information, please contact:

Tyler Wright at 902-314-0789 or tmwright@gov.pe.ca

FUNDING ASSISTANCE:

Program	Funding Level	Maximum Funding
3.1 - Alternative Livestock Watering Systems	50%	\$8,000
3.2 - Improved Stream Crossings	50%	\$25,000
3.3 - Power to Remote Watering Sites	30%	\$4,500
3.4 - Fencing & Livestock Stream Crossings	66%	\$15,000

RESPONSIBILITIES OF THE APPLICANT:

- The applicant is responsible for obtaining all required licenses, permits, approvals or authorizations and for complying with all applicable municipal, provincial and federal legislation.
- The applicant must adhere to the Construction and Management Guidelines provided by the PEI Department of Agriculture and Fisheries during construction. These will be provided with project approval. The applicant must ensure that all works constructed under this program will be maintained and properly managed for a minimum 15 year period.
- Applicant must adhere to Water Well Regulation Section of the Environmental Protection Act.

3.1 ALTERNATE LIVESTOCK WATERING SYSTEMS

Assistance is offered by providing a reliable alternate source of water and fencing livestock from traditional sources of water such as streams and wetlands.

Eligible Expenses:

- Site preparation
- Watering systems
- Pumps and devices
- Electrical costs including the service entrance/panel
- All in-kind expenses must be pre-approved

3.2 IMPROVED STREAM CROSSINGS FOR FARM MACHINERY

Existing poorly designed stream crossings can washout during runoff events or may not allow proper fish passage.

Eligible Expenses:

- Engineering design costs
- Removal of existing faulty crossing
- Repair to existing crossings
- Construction of new crossings including all material, labour and excavation costs associated with the installation of a culvert or bridge type structure
- Seeding and site stabilization costs

Specific Requirements:

- Stream crossings are only eligible for funding if there is an on-going agriculture activity across the stream.
- A replacement stream crossing can be relocated if the existing location is deemed unsuitable from an environmental or fisheries perspective.
- A Stream Alteration Permit will be required for all stream crossing improvements. The applicant is responsible to receive approval from the PEI Department of Community, Land and Environment prior to proceeding with any work.
- The applicant must consult with the Navigable Waters Division of Transport Canada to determine if the stream is navigable prior to proceeding with any work. If the stream could be considered navigable, a formal application must be made under the Navigable Waters Protection Act and no work can proceed until approval is granted.
- The site must be stabilized with proper seeding immediately after construction and recommended erosion control mitigation measures must be followed throughout the construction period.

3.3 POWER TO REMOTE SITES FOR ALTERNATE WATERING SYSTEMS

Complimentary to BMP 3.1 in some instances watering systems in remote areas will require power from the electrical grid.

Eligible Expenses:

- Power line extension up to 500 meters from the closest electrical grid (installation of single phase lines and poles)
- Service pole or acceptable alternative

Ineligible Expenses:

- In-kind expenses are allowed for this BMP

3.4 FENCING, LIVESTOCK STREAM CROSSINGS

Eligible Expenses:

- Fence materials (e.g. posts, stakes, wire, electric fencers, etc.) based on a predetermined cost per foot
- Labour and equipment
- Watering site preparation
- Stream crossings (culverts, bridges, etc.)
- Seeding and site stabilization costs
- All in-kind expenses must be pre-approved

Specific Requirements:

- A Stream Alteration Permit will be required if the stream bank, stream bed, and/or stream are excavated or disturbed in the process of installing the livestock watering system or device, or a stream crossing. If this is the case, the applicant is responsible to receive approval from the PEI Department of Community, Land and Environment prior to proceeding with any such work.
- The site must be stabilized with proper seeding immediately after construction and recommended erosion control mitigation measures must be followed throughout the construction period.

4. WATER MANAGEMENT

The agricultural sector requires access to secure, good quality water supplies for growing crops, providing drinking water to livestock and other agricultural operations. It is important that the sector develop the appropriate infrastructure to enable producers to meet their existing and growing needs through a water management program that stresses efficient and effective use of available rural water supplies.

For further information, please contact:

Josh Dillman, 902-314-0783 or jdillman@gov.pe.ca

FUNDING ASSISTANCE:

Program	Funding Level	Maximum Funding
4.1 - Agricultural water quality	50%	\$15,000
4.2 - On-farm water use efficiency	50%	
4.3 - Improved irrigation efficiency	30%	
4.4 - Sustainable agricultural water supply	30%	
4.5 - Well water management	75%	\$6,000

RESPONSIBILITIES OF THE APPLICANT:

- The applicant is responsible for obtaining all required licenses, permits, approvals or authorizations and for complying with all applicable municipal, provincial and federal legislation.
- Applicant must adhere to Water Well Regulation Section of the Environmental Protection Act.
- The applicant must adhere to the appropriate Construction Guidelines to mitigate potential environmental risks during construction. These will be provided with project approval.
- The applicant must ensure that all works constructed through this program will be maintained and properly managed for a minimum 15 year period.
- If an applicant plans to fertigate, they must install a backflow device.

4.1 AGRICULTURAL WATER QUALITY

On-farm wash lines generate large volumes of wastewater that can be high in suspended solids and organic wastes resulting in high Biological Oxygen Demand (BOD) levels if this effluent is discharged to a surface water body.

Eligible Expenses:

- Water quality treatment – improvements to current systems or installation of a water treatment system to alleviate a water quality issue.
- Wastewater treatment systems – costs associated with the design and construction of a wastewater treatment system to treat agricultural wastewaters.
- Wastewater system funding requirements:
 - The system must be designed and approved by the Project Advisor or a qualified consultant. Plans for the design must accompany the application.
 - An Environmental Impact Assessment consultation will be required, through the PEI Department of Communities, Land and Environment for projects of this nature.

4.2 ON-FARM WATER USE EFFICIENCY

Eligible Expenses:

- On Farm Water use efficiency – installation of new devices to improve the water use efficiency of the system.

4.3 IMPROVED IRRIGATION EFFICIENCY

Using irrigation water more efficiently helps ensure a more secure supply for other users, while maintaining adequate base flow rates for aquatic organisms. By decreasing the rate of evaporation losses, concentrations of salts and minerals can be lowered, resulting in better quality water reaching the crop roots. Fertigation technology provides opportunities for more efficient utilization of nutrients by applying dissolved nutrients

through irrigation water. Fertigation is especially advantageous for intensive cropping systems such as horticultural crops being irrigated through drip or trickle irrigation.

Eligible Expenses:

- Irrigation equipment modification/improvement to increase water use efficiency
- Low pressure/low clearance sprinklers
- Emitters for trickle or drip irrigation systems (above or below ground, including installation costs)
- Low pressure booms
- Monitoring equipment, such as related sensors, soil moisture sensors or evapotranspiration monitoring equipment that increase water use efficiency
- Fertigation equipment, including containment tanks, mixing/blending/metering systems, and backflow valves
- Backflow prevention systems of irrigation water to an existing irrigation system

Ineligible Expenses:

- New irrigation system that involves increased irrigated acres
- Pumps, pipe infrastructure (i.e. wheel move structures, traveling reels, mainline pipe) and water source development costs
- Repair or maintenance of an existing backflow prevention system

4.4 SUSTAINABLE AGRICULTURAL WATER SUPPLY

Eligible Expenses:

- Installation of pipelines to convey water from a property or parcel of land that has an existing water supply to one that does not have an existing water supply.
- New dugout/pond construction, pond enlargement/rehabilitation. Pumps are not an eligible expense.
- Drilling a new well for irrigation or because of a contamination issue on an existing well.
- Establishing a well and tank for spray water instead of using a surface water source.

4.5 WELL WATER MANAGEMENT

If the wellhead is located in a depression, surface water could either enter the well directly or it could seep into groundwater along the outside of the casing if the well is poorly sealed. Point-source contamination through a single well may lead to the contamination of a water supply.

Eligible Expenses:

- Well Abandonment
- Proper decommissioning of unused wells by a licensed well driller

- Well Protection
- Earthwork at wellhead to divert runoff
- Fencing and/or establishing grass at wellhead
- Installation of a pitless adaptor
- Upgrading or maintenance to well head or well casing, fittings, seals, and connections to prevent seepage
- Flow control for artesian wells and backflow prevention
- Casing extensions to elevate well head

Ineligible Expenses:

- Establishing new wells

5. INTEGRATED NUTRIENT/ PEST MANAGEMENT

Properly managed nutrients can reduce negative impacts on water and air quality. Reduction in nutrient loss to surface and ground waters using BMPs will help protect Prince Edward Island’s drinking water. A well-established catch crop, maintained until the following spring, will help reduce nutrient loss throughout the offseason by tying up residual soil nutrients within the catch crop.

Integrated pest management (IPM) prevents and manages pest populations below economic threshold through cultural, mechanical, biological and chemical control strategies. IPM strategies aim to minimize impact on non-target organisms, human health and environment.

For further information please contact:

Kyra Stiles, at 902-316-1600, kstiles@gov.pe.ca
 Sebastian Ibarra at 902-314-0388, sibarra@gov.pe.ca
 Chris Jordan, at 902-314-0816, cwjordan@gov.pe.ca

FUNDING ASSISTANCE:

Program	Funding Level	Maximum Funding
5.1 – Nutrient management planning	50%	\$3,000
5.2 – (A) Winter catch crop following row crop (B) Disease suppressant rotational crop	\$25 per acre up to maximum \$500 per field	\$1,000/ year, for each A and B , up to max. \$2,000 over length of program
5.3 – Bog enhancement	\$500 per acre	\$3000

RESPONSIBILITIES OF APPLICANT:

- Applicants must submit all Property Identification Numbers (PID’s) and Field Identification Numbers (FID’s) related to project work.

- Field management must be in compliance with all current provincial regulations.
- Field crop rotation must be stated at time of application.
- This BMP cannot be performed until the application is received by the program and the applicant discusses the work plan with a project advisor. For BMP 5.1, the applicant agrees to implement the Nutrient Management Plan developed.
- For BMP 5.2, criteria used for catch crop selection must be recorded and submitted with the program application.
- For BMP 5.2, the applicant agrees to establish the winter cereal catch crop within an approved time frame for said crop, as discussed with the project advisor.
- For BMP 5.2, the applicant must inform the project advisor immediately after the catch crop is seeded so crop establishment can be measured and recorded.
- For BMP 5.2, the catch crop must not be tilled or plowed following establishment prior to spring tillage.
- For BMP 5.2, the disease suppressant crop can be cut throughout the growing season to prevent seed onset and avoid weed seeding for next season.

5.1 NUTRIENT MANAGEMENT PLANNING

Properly managed nutrients can reduce negative impacts on water and air quality. The primary goal of nutrient management planning is to optimize a nutrient's advantages and minimize their disadvantages. Prince Edward Island derives all of its drinking water from ground water sources and therefore is very concerned with overuse, abuse and inefficient application of nutrients applied to the land. A Nutrient Management Plan (NMP) is a responsible approach to maintaining and protecting the Island's drinking water quality. NMPs must be completed by a qualified nutrient management planner.

Note: A qualified nutrient management planner is an individual who has completed the Nutrient Management Training course through Dalhousie University and Prince Edward Island nutrient management training sessions.

Eligible Expenses:

- Consultant fees associated with preparing a NMP and costs associated with any resource materials required as part of the plan. This would include planning and decision support tools such as specialized nutrient management computer software and aerial photography.

5.2 WINTER COVER FOLLOWING ROW CROP (A) OR DISEASE SUPPRESSANT ROTATIONAL CROP (B)

Catch crop establishment prior to winter can help reduce nutrient loss events by retaining residual soil nutrients within the crop during the fall and winter months. Catch crops can also act as soil cover by holding the topsoil in place outside of the growing

season when soil erosion due to wind and water movement can be significant. Recent data also suggests that keeping living roots within the soil for as long as possible throughout the year is beneficial in promoting soil health and can help stimulate activity and diversity within microbial populations.

Evidence suggests that integrating alternative solutions to pesticides, such as disease suppressant crops within a crop rotation, can reduce the damage to daughter tubers caused by pests such as wireworms, and increase marketable yields without reducing total yields. Furthermore, the inclusion of these rotation crops has decreased the prevalence of tuber bacterial and fungal diseases in previous studies. Brown mustard (*Brassica juncea* var. *Centennial*) is the recommended disease suppressant crop within potato and other non-cruciferous production systems. Buckwheat (*Fagopyrum esculentum* var. *Mancan*) is the recommended disease suppressant crop recommended for rotations with cruciferous main crops.

Eligibility Criteria for 5.2 A and B: Applicant must establish a winter cereal as a catch crop following the growing season of a row or disease suppressant rotational crop.

Eligible row crops for use under this program for **5.2 A** would include, but are not limited to: **potato, turnip, cabbage, or carrot** crops.

Eligible disease suppressant rotation crops for **5.2 B** would include, but are not limited to: **brown mustard or buckwheat**.

Other row or disease suppressant rotation crops that are not listed must be discussed with the project advisor prior to application to assess eligibility under this program.

All fields approved through the program are subject to site visitations in the summer, late fall and early spring to ensure that a row crop/disease suppressant rotational crop was grown, and that a winter cereal catch crop was well established and maintained until the following spring.

Dependent on the season, general guidelines for planting of winter cereals on PEI is by mid to late September for drilled in seeding, and by mid-October for broadcast seeding (prior to harvest). Winter cereal catch crops for this program will be checked for acceptable establishment following November 15th, using the establishment criteria of a minimum plant density of 250 plants / m², or the equivalent percentage of plant density using a smartphone canopy cover application. Fields that had extremely poor establishment below the minimum criteria will not be covered within this program.

Eligible Expenses for 5.2 A and B:

- Acreage in row crop production followed by a winter cereal catch crop

- Acreage in disease suppressant rotational crop production followed by a winter cereal catch crop

Eligible Winter Cereal Catch Crops for 5.2 A and B::

Fall Rye
Winter Wheat

5.3 BOG ENHANCEMENT

Cultural pest control strategies can play a significant role in reducing pesticide use. Sanding beds on a regular basis is an important method to accomplish this by suppressing the larvae of several insect species. Sanding also helps suppress fruit rot inoculums by burying old, infected leaves that have been dropped by the plants. This may help to reduce the use of fungicides in the next crop. Sanding may also delay the emergence of weeds resulting in a competitive advantage to the cranberry crop early in the spring.

Eligibility Criteria:

The applicant must be a cranberry producer. The application must be approved by the Project Advisor. All properties approved through the program are subject to site visitations to ensure that a cultural control was applied.

Eligible Expenses:

- Acreage in agricultural production that sand has been applied to as a pest and weed management tool.

6. ENERGY MANAGEMENT

Implementation of on-farm energy efficiency initiatives can reduce environmental impact through a reduction in the use of energy sources such as fuel and electricity. More efficient equipment, timers, low energy lighting, energy transfer and heat conservation systems can all reduce energy use.

Eligibility Criteria:

- An On-farm Energy Audit must have been completed
- The project you wish to complete must be identified in your On-Farm Energy Audit and a copy of the audit must be submitted with the application.

For further information, please contact:

Josh Dillman at 902-314-0783 or jdillman@gov.pe.ca

FUNDING ASSISTANCE:

Program	Funding Level	Maximum Funding
6.1 - On Farm Energy Efficiency	30%	\$10,000

RESPONSIBILITIES OF THE APPLICANT:

- The applicant is responsible for obtaining all required licenses, permits, approvals or authorizations and for complying with all applicable municipal, provincial and federal legislation associated with implemented project.
- Any electrical work must be completed by either the certified equipment supplier or a certified electrician. If the work is completed by a certified electrician a copy of the 'Certificate of Compliance' will be required before the applicant will receive funding.

6.1 ON FARM ENERGY EFFICIENCY

Eligible Expenses:

- Costs associated with implementation of On-Farm Energy Audit recommendations for projects leading to improved on-farm energy efficiency. Projects and expenses must be approved by the Advisor and fit within the objectives of the program.

Ineligible Expenses:

- On-Farm Energy Audit recommendations associated with regular farm and equipment maintenance or management, for example:
 - maintenance or cleaning of heaters, motors, and pumps
 - cleaning of ventilation systems
 - disposable assets or ongoing costs
- Equipment or systems for new buildings or expansion of operations
- Renewable energy systems
- Cost of an On-Farm Energy Audit or any related cost to the completion of the audit
- On-Farm Energy Audit recommendations related to improved fuel efficiency for tractors and other related farm implements
- On-Farm Energy Audit recommendations for residential or non-agricultural areas of the operation

Effective Date: April 1, 2017