

B.C. On-Farm Technology Adoption Program

Program Guide



Led by the Ministry of Agriculture and Food, the program is funded under the Sustainable Canadian Agriculture Partnership, a five year (2023-2028) federal-provincial-territorial initiative to strengthen the competitiveness, innovation, and resiliency of Canada's agriculture and agri-food sector and delivered through Innovate BC.

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Program Overview

Background

The B.C. On-Farm Technology Adoption Program (the Program) is a competitive program, funding is not guaranteed. Applicants are encouraged to submit projects focused on the adoption of labour-saving technologies on-farm that are innovative and first of their kind in British Columbia (B.C.) or represent novel use within a commodity sector.

The Program is led by the B.C. Ministry of Agriculture and Food (the Ministry) and is funded under the *Sustainable Canadian Agriculture Partnership* (Sustainable CAP), a five year (2023-2028) federal-provincial-territorial initiative to strengthen the competitiveness, innovation, and resiliency of Canada's agriculture and agri-food sector. Innovate BC, through its Integrated Marketplace Initiative, is delivering this program on behalf of the Ministry.

The primary focus of the Program is to provide cost-shared funding to eligible applicants to adopt new technologies on-farm that will enhance their profitability, productivity, and/or efficiency. The second intake of the Program, launching on August 20, 2024, will focus specifically on new technologies that address labour-intensive tasks.

The Ministry understands that high upfront costs are a primary hurdle for producers to explore or trial new tools, and that accessing large amounts of capital needed to implement new tools and technologies can be prohibitive.

This Program aims to strengthen B.C.'s agriculture sector through adoption of new technologies on-farm. New technology could include, but is not limited to, a newly created technology that differs significantly from existing technologies in-use, an existing technology that is modified to

meet different requirements, or an existing technology that is implemented in different situations. These technologies or equipment must be viable and commercially available for purchase.

Applicants

Eligible Applicants

To be eligible, applicants must:

- be based in B.C.;
- be appropriately registered, licensed and/or certified to conduct business in B.C.;
- have a minimum of two years in operation; and
- Made no less than \$50,000 in annual revenue during the previous two years from the production (farm, grow, raise) of primary B.C. agriculture commodities (e.g., fruit, vegetables, grains, livestock, etcetera). The Ministry reserves the right to waive the minimum farm revenue requirement for underrepresented groups.
 - o For farmers who have experienced crop loss due to weather or other factors beyond their control that has impacted their revenues in the two years prior to applying, exceptions to these revenue requirements will be made if they can demonstrate they have reached the \$50k threshold for two of the past five years. If so, the funding cap will be applied based on the revenue value prior to crop loss.

The following applicant types are eligible for this Program:

1. **Agriculture producers** (i.e., farmers, growers, or ranchers) of primary agriculture commodities; and

2. **Indigenous businesses or entrepreneurs** that are majority-owned by Indigenous individuals or communities (at least 51%) and produce primary agricultural commodities or engage in traditional food production practices.

Ineligible Applicants

The following applicants are ineligible for this Program:

- operations that grow, process or handle health or nutrition supplements, pet food or food not intended for human consumption, or cannabis;
- food and beverage processors, wholesalers, distributors, farm input suppliers, restaurants, and other food service establishments;
- unlicensed, unregistered, or uninspected facilities;
- food packing operations located off-farm;
- aquaculture and seafood production/processing businesses; and
- any other business that does not fall within the scope of eligible applicants in this Program Guide.

Expenses and Activities

Eligible Expenses and Activities

This program supports the adoption of commercially available, labour-saving technologies on farms. These technologies should be new to Canada, B.C., a specific commodity sector, or a region. The goal is to enhance farm profitability, productivity, and efficiency.

Innovative Labour-Saving Technologies: This competition aims to support the ability of farming agriculture businesses to grow, raise, harvest, pack, or store crops and animals more effectively, productively, or profitably through labour-saving technologies. Labour-saving technology for this program means:

- Technology that reduces the hours spent on a particular task;
- Technology that increases the productivity per worker, e.g., implementing a new piece of equipment that has advanced capabilities to speed up the pace of the worker or increase the output from the worker by streamlining specific actions that the worker takes, such as how the autonomous picking platform works; and/or
- Technology that reduces workforce, e.g., from 4 staff to 3 staff by implementing a piece of automated equipment.

Examples of Eligible Technology	Funding Ratio	Min/Max Funding Amounts
<p>Autonomous Equipment/Robotics: technologies that operate independently and adapt to their environment. For example:</p> <ul style="list-style-type: none"> - Autonomous weeding equipment - Autonomous transplanting systems - Autonomous supply delivery systems - Autonomous harvesters - Autonomous sorting at harvest - Autonomous manure collection systems <p>Machinery: technologies that perform specific tasks with minimal but some human interaction. For example:</p> <ul style="list-style-type: none"> - Automated grading and sorting machines - Automated pruning/tying equipment - Automated precision fertilization - Automated stacking and dumping equipment <p>Smart Sensors and Monitoring Equipment: devices that collect and analyze data in real-time to optimize agricultural processes,</p>	<p>At least 35% cash contribution from the Applicant* 65% covered by the Program.</p>	<p>\$1,000 - \$100,000</p>

Examples of Eligible Technology	Funding Ratio	Min/Max Funding Amounts
<p>enable faster decision making, remote control or management, or otherwise result in labour savings. For example:</p> <ul style="list-style-type: none"> - Smart camera-guided systems - Smart temperature and moisture sensing - Health monitoring for livestock via sensors - GPS ear tags for livestock - Leaf, soil moisture, or sap flow sensors <p>Artificial Intelligence (AI): AI and machine learning technologies enable systems to adapt and make decisions as well as predictions, or otherwise result in labour savings. For example:</p> <ul style="list-style-type: none"> - AI systems for optical sorting - AI systems for health monitoring of livestock - AI systems for climate monitoring - AI systems for weeding or pest management <p>Farm Business Management Tools: technologies that assist in planning, analyzing, and optimizing the operational aspects a farm and result in labour savings. For example:</p> <ul style="list-style-type: none"> - Software that helps track farm activities. - Decision support systems to optimize farm operations. <p>Other Technologies: New and emerging technologies that do not fall under the categories above, but that would result in substantial labour savings when implemented.</p>		

*Applicants must not use other government funding sources to cover the minimum Applicant contribution amount.

Ineligible Expenses

The following costs are not eligible under the B.C. On-Farm Technology Adoption Program. The list below is not an exhaustive list and Applicants are encouraged to reach out to Program

Management to confirm if an expense is eligible:

- Leasing costs;
- Maintenance and repair costs;
- Fees for permits, approvals, or legal activities;
- Costs of ongoing activities;
- Financing charges, loan interest payments, bank fees, and charges;
- Extended warranties on equipment, electronics, or technology purchases;
- Expenses related to aquaponic food production, or to aquaculture, seaweed, fish and seafood production and processing; and
- Purchases made before application is approved, or expenses after the project completion date unless consent is received from the Program.

Ineligible Activities

The Program does not cover the activities mentioned below. However, please get in touch with Program Management to confirm if a particular activity qualifies, especially if a detailed rationale can be provided on *how the activity is an innovative labour-saving solution that is also new to Canada, B.C., a specific commodity sector, or a region.*

- Items that are commonly used for recreational or non-agricultural purposes (e.g., iPads, TVs, and recreational drones);
- Activities related to aquaponic food production, or to aquaculture, seaweed, fish and seafood production and processing;
- New building construction including sheds, barns, or storages (for products or by-products).

- Purchase of closed environment structures for farming;
- Drones;
- Greenhouses and poly tunnels;
- Indoor lighting, aeroponics technology, or irrigation systems (e.g., piping).
- Plant propagation and growing media;
- Subscriptions for management software or apps after the first year.
- Used equipment;
- Technology that is non-compliant with all federal and provincial laws and regulations; and
- Purchases of common technologies that are already widely used in the specific sector (unless they offer significantly novel features or functionalities that innovatively address repetitive and labour-intensive tasks, or present a new labour-saving solution specific to B.C., a particular commodity, or a region). Here are examples of common technologies that are not eligible:

Examples of Common Technologies that are Industry Standard Not Eligible*	
General Agriculture	<ul style="list-style-type: none"> - GPS guidance on harvesters/tractors - Conventional climate-control systems and infrastructure updates - Equipment for the application of agricultural by-products - Composting of agricultural wastes (residuals) - Irrigation timers/scheduling - Water meters and flow measuring devices - Precision guidance (GPS) for nutrient and pesticide management - Conventional fertilizer application technology - Replacement of fossil-fuel equipment with electrical equipment or fossil-fuel equipment. - Conventional accounting software such as QuickBooks. - Drones

Examples of Common Technologies that are Industry Standard Not Eligible*	
Crop Specific	<ul style="list-style-type: none"> - Sorting/inspection equipment in packing facilities (Berries) - Machine harvesters (Berries) - U-tunnels/high tunnels (Berries, Grapes) - Human tractor-driven cultivation/transplanters (Field Vegetables) - Climate control automation, HVAC, LED lighting (Greenhouse Vegetables/Floriculture) - Carbon dioxide supplementation (Greenhouse Vegetables) - Basic mechanical transplanters (Greenhouse Vegetables) - Frost fans/wind machines, pesticide sprayers (Grapes) - Wind machines (Tree Fruit) - Reflective material for colour development (Tree Fruit)
Livestock Specific	<ul style="list-style-type: none"> - Walk-in freezers (Beef) - Milking robots, feed pushers (Dairy) - Conventional cow monitoring collars, ear tags, pedometers (Dairy/Beef) - Climate monitoring/control, ventilation, cooling, heat exchangers (Poultry) - Automated feeders, egg collection, manure systems (Poultry)

*Proposals that include technologies mentioned above will still be considered if the technology requested:

- Has substantially novel features or functionalities that address repetitive and labour-intensive tasks in an innovative way; and
- Is an innovative labour-saving solution that is also new to a specific commodity sector or to Canada, B.C., or a region.
- For example, an irrigation system (common) that can also apply diluted liquid manure (agricultural by products), that is autonomous and navigates an irregularly shaped field using RTK-GPS guidance, while unrolling an irrigation drag line, and then returns across the field, rolling the drag line back onto the unit would still be eligible.

Please contact Program Management if you have questions about the eligibility of a specific technology that meets the two requirements above.

Other Funding Sources

Please note that some activities that are ineligible under the On-Farm Technology Adoption Program, may be funded through following programs:

- [Beneficial Management Practices \(BMP\) Program](#)
 - The BMP program provides cost-share funding to producers to cover equipment purchases, energy/greenhouse gases projects, irrigation projects, construction projects, riparian projects, water projects, and more.

Activity examples:	BMP Code:
Improved land application of agricultural by-products	0301
Composting of agricultural wastes (residuals)	0803
Improved irrigation system management and irrigation scheduling (incl. automation equipment and software)	1802
Water meters and other flow measuring devices on farm	1808
Precision guidance applications (GPS – management of nutrients)	3202.1
Precision guidance applications (GPS – management of pesticides/residuals)	3202.2
Improved fertilizer application technology	3203
Replacement of fossil-fuel-driven equipment or motors with electrical equipment or motors	3302.1
Replacement or transition to fuel efficient equipment	3302.2

- [The Traceability Adoption \(TA\) Program](#)

- The Traceability Adoption program provides cost-shared funding to individual food, seafood, and agriculture businesses to implement facility-based traceability practices systems, infrastructure and technologies.

- [Extreme Weather Preparedness \(EWP\) Program](#)
 - Provides cost-share reimbursements to farm or agriculture businesses to address risks related to wildfire, flooding, and extreme heat (including improved climate-control systems and infrastructure updates).

- [New Entrant Farm Business Accelerator \(NEFBA\) Program](#)
 - A “New Entrant” is defined as an agricultural producer who has not reported farm income for more than 5 years. The Program supports business planning and cost-shared purchasing of commercial farm infrastructure and equipment needed to accelerate the revenue growth of farm businesses.

- [Food Safety Program \(FSP\)](#)
 - Cost-shared funding is available for a range of eligible activities under three distinct categories:
 - Category 1: On-site Food Safety Assessment
 - Category 2: Food Safety Improvement
 - Category 3: Third party audited OFFS/HACCP Certification(s)

- [B.C. Employer Training Grant](#)
 - Cost-sharing program that helps employers pay for training for their current or new employees. Employers can apply for funding to cover up to 80% of the cost of training up to \$10,000 per employee and a maximum of \$300,000 per employer annually.

Applications

Application Process

Applicants for all technology categories will be required to submit a funding application through the application portal during the call period (August 20 to October 6, 2024). All applicants will be required to provide:

- Annual organization revenues from the previous two years, specifically from the production of (e.g., farm, grow, raise) primary B.C. agriculture commodities (e.g., fruit, vegetables, grains, livestock, etc.). Organization revenues related to other activities must not be included;
- Confirmation of quote(s) from the technology supplier for the purchase to substantiate the funding request amount and delivery timelines;
- Confirmation of a proposed delivery date (required by March 20, 2025) for the items to be purchased, once an application is approved (note: approval decisions will be communicated to applicants in late October or early November);
- An estimate of the hours that the technology will save for your business operations;
- An estimate of the service life of the technology from the company; and
- An estimate of the anticipated payback period for the investment.

Adjudication and Assessment

Submitted applications will be received and reviewed by Innovate BC. All applications received will be evaluated based only on the information submitted and will not be considered if they do not meet application eligibility criteria or are incomplete.

Fully completed applications submitted by October 6, 2024, will be reviewed in October to ensure they meet basic eligibility criteria and will be further assessed against criteria set out by the

Ministry to allocate available cost share funding to projects best aligned with the Program objectives. Applications will be assessed based on their:

- Impact on labour savings, productivity, efficiency, and/or profitability;
- The type of technology/innovation being purchased (with a higher emphasis on applications that will result in technologies/innovations being purchased and installed that are entirely new to B.C. and/or a specific commodity sector); and
- The project budget and timeline.

If an application is approved, the Applicant will be informed of the details of the decision and any associated terms and conditions via email within a target three-to-four-week period post-call close (e.g., late October to early November 2024). The Applicant will then be invited to enter into a Funding Agreement with Innovate BC which outlines the obligations of each party for the approved project.

If an application is not approved, the Applicant will be notified of the decision by email and will be provided an opportunity for additional feedback should they wish to request it.

Project Award & Outcomes Reporting

Contracting and Awards

Applicants with an approved funding request will be invited to enter into a Funding Agreement with Innovate BC; no funding will be released without the successful execution of a Funding Agreement. After execution, amendments to a project, its corresponding activities, or budget are generally not possible. Innovate BC reserves the right to review Funding Agreements on a case-by-case basis in extenuating circumstances without obligation to agree to proceed with modifications or amendments.

Funding is provided on a reimbursement basis for eligible expenses incurred, subject to submission of expense claims including invoices and proof of payment for the technology purchase, and photographic confirmation the technology has been received on location. **For this funding call, confirmation of purchase and delivery of the technology will be required by no later than March 20, 2025.** Payments will be issued within three to four weeks following a complete project claim submission.

Outcomes Reporting

Applicants will be required to complete both a progress and final outcomes survey within the following 12 months. These surveys will gather important information regarding technology performance, with specific interest around changes in productivity, efficiency, and/or profitability to help inform the Ministry and the sector about how and what technologies support the labour savings, efficiency, productivity, or profitability of farms in B.C.

Data Privacy

Innovate BC is committed to respecting your privacy. Innovate BC's Privacy Policy identifies what information is collected about you and how it's used by Innovate BC when you visit innovatebc.ca (the "Site"), apply to one of our programs, or communicate with Innovate BC. Please visit the [Innovate BC Privacy Policy](#) to learn more.