



AgriScience Program

Clusters Component

Sustainable Canadian Agricultural Partnership (SCAP)

Applicant Guide





Purpose of this guide

This guide will:

1. help you determine if you are eligible for funding from Agriculture and Agri-Food Canada (AAFC) under the AgriScience Program – Cluster component
2. provide instructions to help you complete the application form

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1.0 The AgriScience Program

Program components

The AgriScience Program provides support through two components:

1. AgriScience Clusters (Clusters)
2. AgriScience Projects (Projects)

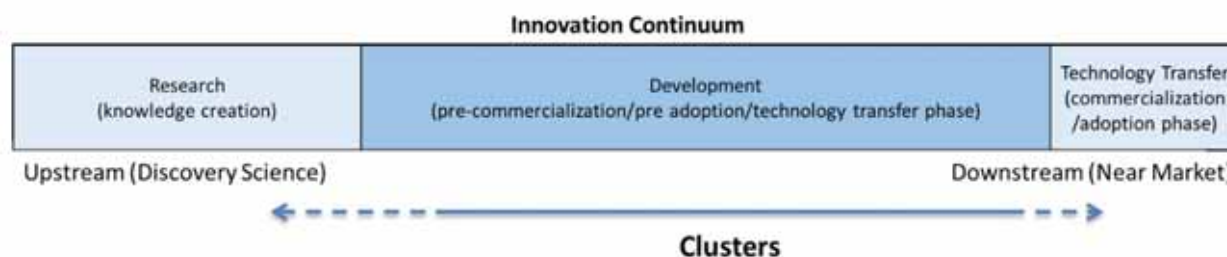
Program objective

The AgriScience Program, under the Sustainable Canadian Agricultural Partnership (SCAP), aims to accelerate the pace of innovation by providing funding and support for pre-commercial science activities and research that benefits the agriculture and agri-food sector and Canadians.

This guide is designed for applicants to submit Cluster proposals. A separate guide will be made available for the AgriScience Program – Projects Component.

1.1 About the AgriScience Program – Clusters Component

On the innovation continuum, Cluster activities range from applied research and development to technology and knowledge transfer.



Innovation, Science and Economic Development Canada has established a scale to guide applicants seeking government funding in assessing their [Technology Readiness Level](#). The program typically includes eligible activities from levels 4 to 7 on the scale, essentially taking applicants from proof of concept to prototype on the Innovation Continuum.

1.2 Program priorities and eligible activities

The program consists of three (3) priority areas and research activities must align with at least one of these priority areas.

- Climate Change and Environment
 - Research that addresses climate change and environmental sustainability, to help the sector contribute to the Government of Canada’s 2030 and 2050 emissions targets.
 - Within a Cluster proposal, a minimum of 30% of overall Cluster costs must be towards activities that focus primarily on this priority area, of which half (50%, or 15% of overall Cluster costs) must focus primarily on greenhouse gas (GHG) emissions reduction or carbon sequestration, with the balance focusing on other environmental areas, including: soil health,



- water quality, air quality, biodiversity, and plastics.
- Applicants are strongly encouraged to submit proposed activities exceeding the minimum requirements.
- Economic Growth and Development
 - Supporting economic growth by creating conditions for Canadian businesses to meet evolving challenges of the interconnected domestic and global marketplace.
 - A suggestion of 30% to 50% of activities align with this priority area.
- Sector Resilience and Societal Challenge
 - Enhancing resiliency to anticipate, mitigate, and respond to risks, and build public trust (for example, contributing to reduction in antimicrobial resistance).
 - A suggestion of 20% of activities align with this priority area.

AAFC works continuously to improve horizontal collaboration across government funding programs. As part of your application, AAFC will require your consent to share a summary of your Cluster proposal with other federal, provincial and territorial governments.

Please note, Cluster proposals that do not meet the minimum investment requirements for activities that focus primarily on Climate Change and Environment, including GHG emissions reduction or carbon sequestration, may be deemed as application under the Project component.

Health Claims and Human Clinical Trials

A food health claim is any label or advertising that suggests a relationship between a food or an ingredient and a person's health.

AAFC will only consider funding research projects that include human clinical trials to support disease risk reduction and therapeutic health claim for which stakeholders will seek to obtain a Health Canada pre-market approval or recognition of the validity of the health claim.

In assessing projects, AAFC (and Health Canada, where appropriate) will evaluate that the applicant has demonstrated a body of evidence that is broadly supportive of the claim and that the literature review and human clinical trial design and conduct are deemed to be methodologically robust enough to meet Health Canada standards.

Variety development

Variety development remains an eligible activity under the program where the research aligns with at least one of the three priority areas. However, AAFC will prioritize activities focused on early stage development work, which is typically characterized by the development of new traits, and involves genome development and plant breeding. Later stage work continues to be eligible but will be of lower priority. Later stage work is typically characterized by the incremental development of traits, such as the delivery of finished varieties during a 5-year period.



Pest and disease surveillance

Activities related to pest and disease surveillance will only be considered eligible if they are required as part of a broader research activity. Regular and routine monitoring for pests and diseases are not eligible activities. You must clearly explain how any surveillance and monitoring data captured is novel and supports the desired impact of the research activity.

1.3 Eligible applicants

Eligible Cluster applicants are not-for-profit organizations (organizations that operate solely for social welfare, civic or collective improvement, pleasure or recreation, or any other purpose except profit), which may include:

- associations
- corporations
- cooperatives
- Indigenous groups

Note: Eligible applicants must be legal entities capable of entering into legally binding agreements.

1.4 Funding and cost-sharing

Funding

Applicants may apply for one of three options:

1. **non-repayable contribution funding** (referred to as Vote 10 at AAFC) for research activities conducted by industry
2. **collaborative research and development support** (referred to as Vote 1 at AAFC) for research performed by AAFC scientists
3. both (Vote 10 and Vote 1)

In all cases, successful applicants are required to enter into a legal agreement(s) with AAFC as indicated below:

Contribution funding (Vote 10)

Successful applicants (recipients) enter into a Contribution Agreement (CA) with AAFC that stipulates a number of reporting requirements, including reporting on expenses incurred for the purpose of reimbursement.

Collaborative research assistance (Vote 1)

AAFC Science and Technology Branch scientists can conduct research on behalf of your Cluster. Successful applicants (collaborators) obtaining this support must enter into a Collaborative Research and Development Agreement (CRDA) with AAFC. The CRDA outlines the milestones, licensing options and payment schedule for the industry share of funding supporting the Cluster activities. The approved Vote 1 financial allocation is not paid to the collaborator but provided within AAFC.



Maximum and minimum AAFC funding amounts (Combined contribution funding and collaborative research assistance)

The AAFC funding for a Cluster will not exceed \$15 million and will be no less than \$5 million over 5 years (combined Vote 1 and Vote 10).

Intellectual Property (IP)

Where applicable, IP management will be addressed directly in agreements. For questions related to IP please reach out to program staff for assistance.

Cost-sharing

The cost-share ratio for Clusters will vary by activity, determined by the priority area that is selected for each activity. Eligible costs may be shared as follows:

- For activities that have a primary focus on GHG emissions reduction or carbon sequestration, a maximum of 70% AAFC and minimum of 30% applicant
- For activities that have a primary focus on Climate Change and Environment other than GHG emissions reduction or carbon sequestration, a maximum of 50% AAFC and minimum of 50% applicant
- For activities that have a primary focus on Economic Growth and Development and Sector Resilience and Societal Challenges, a maximum of 50% AAFC and minimum of 50% applicant
- For non-research related activities, including Science Co-ordination, Knowledge and Technology Transfer (KTT), and the new Impact Assessment activity, a maximum of 50% AAFC and minimum of 50% applicant.

Your cost-share portion can be comprised of internal resources and other industry and/or partner sources of funding including:

- Industry associations and networks
- Businesses
- Academia

You are encouraged to seek additional funding sources which may also include other government sources of funding such as:

- Other federal government departments
- Provincial/territorial governments
- Municipal, regional and local governments

In-kind may be considered as part of your cost-share (up to 10%) and total government sources of funding will not exceed 85%. For more information, refer to Annex A: How to Apply.

Eligible costs

All costs claimed under the program or contributed by industry and other sources for the Cluster and its activities, must fall within the program cost categories and respect all limitations. For more information and details on cost categories, eligible/ineligible costs and other limitations, refer to Annex B: Cost Categories.



In-kind contributions

In-kind contributions can make up 10% of the total cost of the CA. For CRDA activities, in-kind can make up to 10% of the total applicant contribution and in-kind will be managed on an activity-by-activity basis in place of the overall Cluster to ensure integrity of all activities. In-kind contributions are provisions of goods or services requiring no outlay of cash by the recipient or Cluster. There can be no expectation of reimbursement or payment for the goods and services provided by you to the provider, and the contribution must be valued at market rates with supporting documentation and/or justification.

Some examples of in-kind contributions include:

- Use of land, buildings, equipment, machinery, or specialized laboratory equipment
- Use of materials or supplies as inputs (such as seeds, fertilizers, etc.).

Salaries, wages, fees and benefits of employees or contractors in your or the collaborator organization do not qualify as in-kind contributions. These must be identified as costs associated with the Cluster activities.

1.5 Application deadline

Applications for Clusters will be accepted until **February 1, 2023**. The program ends March 31, 2028. For more information on how to complete a Cluster application, refer to Annex A: How to Apply to complete the application form.

2.0 Expected impacts

The AgriScience program under SCAP will require reporting on impacts, which are the desired outcomes of Clusters and their individual activities within each of the three priority areas. Performance measures and indicators both quantitative and qualitative are means of demonstrating the desired impacts of Clusters and their proposed activities.

Building on program priorities, Cluster activities are expected to produce results in addition to knowledge transfer impacts.

For more guidance on developing performance measures, templates for development, and preparing your performance information, refer to Annex C: Performance Measures.

3.0 Cluster assessment criteria

The application process is competitive and the application assessment will consider three main components:

- The science
- The program's funding principles
- Your organizational capacity

First, all proposals will be reviewed to ensure that the activities incorporate sound scientific methodologies and principles. This assessment will examine the following criteria:

- Relevance, risk, feasibility and impact of the research on the sector
- Research methodology and experimental design



- Peer reviews provided for each activity (see Annex E: Peer Reviews) and activities amended to reflect the reviewers' feedback
- Timelines are realistic to achieve planned results
- Science capacity, that the proposed science team possess or has access to the necessary qualifications, mix of disciplines, and track record to successfully complete the proposed activities
- Proven capacity/capability of IP management where applicable

In addition, where proposed activities are a continuation of work supported under a previous AgriScience Cluster, applications should demonstrate how the current proposal advances the science relative to the previous work. Evidence of progress toward the objective of the previously-funded research should be included in the proposal.

AAFC will also examine Cluster proposals based on their alignment with the following program funding principles:

1. Strategic value to Canada

The combined research activities represent a cohesive strategy for the sector and there is a clear articulation of how the proposed research activities will advance the sector in each of the program's three priority areas to benefit Canada.

2. Whole value/supply chain considerations

Numerous partners in the value and/or supply chain have been considered in the selection of activities put forward for support, and are expected to benefit from the results of the proposed research activities.

3. Results-based

The proposed activities will provide clear and measurable economic, environment and social benefits. The proposal includes a strategy to measure the impacts of the Cluster as a whole as well as the impacts of each individual research activity.

4. Knowledge transfer and adoption

The proposal includes appropriate knowledge transfer components to disseminate and encourage uptake of results, ensuring that stakeholders can benefit from the outcomes.

5. Collaboration and partnerships

Partnerships include researchers, academia, producers, processors, transporters, distributors, exporters, industry groups, non-governmental organization, retailers, and private industry. Efforts have been made to increase the participation of underrepresented groups such as women, youth and Indigenous applicants and partners.

Finally, each proposal is assessed to confirm that you have the requisite technical, financial and managerial capacity to manage the Cluster research activities.

Priority for funding and support will be directed towards Cluster proposals and/or activities that meet or exceed the expectations outlined in these program principles and assessment criteria. If a proposal does not meet or exceed these expectations, you may be directed to:

- Seek support from other funders where appropriate



- Remove certain proposed activities within Cluster proposals
- Submit some or all of the proposed Cluster activities as a project application
- Cluster applications that fail to meet the minimum investment requirements for activities that focus primarily on Climate Change and Environment, including GHG emissions reduction or carbon sequestration may be shifted to projects
- Increase the industry contribution

4.0 Reporting requirements

You must clearly demonstrate how proposed activities will advance their sector in each of the three specified priority areas.

The impact of your Cluster activities should be assessed by incorporating a combination of both quantitative and qualitative performance measurement tools as outlined in 2.0 Expected Results. A plan for these assessment strategies must be provided for each priority area. The assessment should also include a summary of possible IP developed as a result of the activities.

Progress, performance and financial reports will be required and based on specified milestones in the Cluster work plan or based on time and reporting requirements of AAFC. A final report is required of all Clusters.

4.1 Financial reporting

You will be required to have an external auditor conduct an annual financial audit of your Cluster costs. The completed audits must be submitted annually to AAFC, as they will form the basis for which you will be reimbursed.

Other requests, such as requests for advances, must be submitted directly to AAFC.

Should your Cluster application be approved, additional parameters for financial reporting and the annual financial audits will be provided at the time of signing the CA. Additional due diligence may be required.

4.2 Performance reporting

You will be required to complete a Performance Measures Table (PMT) with your application. A PMT is required for each proposed activity and will be integrated into final Agreement(s).

PMT Requirements

Clusters require one PMT for each activity. A PMT is not required for science co-ordination or impact assessment activities.

In the event a Cluster activity has work being done under both a CA and a CRDA, only one PMT is required for the activity. PMT's for any Vote 1 activities must be developed in collaboration with AAFC researchers collaborating on your proposal.

Please refer to Annex C: Performance Measures for further instructions on performance measures and



requirements.

4.3 Impact assessment

Returning Clusters will be required to carry out an impact assessment relating to the research funded by the program under the previous policy framework(s). The assessment requires an evaluation of the impacts and outcomes of the Cluster on the sector and an in-depth quantitative assessment of a minimum of three activities identified by the Cluster as success stories. For more details, please refer to Annex D: Impact Assessment Guidelines.

5.0 Contact us

For more information on the program, please contact us by:

Email: aa.fc.agriscienceprogram-programmeagri-science.aac@agr.gc.ca

Telephone: 1-877-246-4682

TDD/TTY: 613-773-2600

Mail:

Agriculture and Agri-Food Canada
AgriScience Program

1341 Baseline Road
Ottawa, ON K1A 0C5



6.0 Glossary of frequently used terms

The following terms are used in this Applicant guide and accompanying Annexes:

Cash contribution – means an expense requiring a cash outlay, by either the recipient organization or another Cluster participant/contributor (such as a partner or other government), during the term of the CA. Specifically, a cash contribution is an expenditure for an eligible project cost incurred and paid for by the recipient organization, or another project participant. AAFC will only reimburse cash contributions for eligible project costs that are incurred and paid for by the recipient organization. A cash contribution made by another project participant should be reported as part of the recipient's contribution, and must be an eligible project cost.

Note: When universities and colleges provide services/goods for a Cluster (such as employee/researcher time) under a service contract/research agreement, for which the institution is not reimbursed by the recipient organization or another Cluster participant/contributor, these services/goods may only be included in the project expenditures as an in-kind contribution.

Contribution – is a transfer payment subject to performance conditions specified in a CA. A contribution is to be accounted for and is subject to audit. Contributions are different from grants, grants are unconditional transfer payments.

Collaborative Research and Development Agreement (CRDA) – is a legally binding agreement used when two or more Parties, including AAFC, agree to work in collaboration through an equitable relationship on a common research project, in putting their respective resources pursuing common goals and sharing the benefits and the risks associated with this endeavour.

Fair value – means the amount for services that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act.

Fair market value – means the reasonable dollar value amount you can get for your goods in an open and unrestricted market, between a willing buyer and a willing seller who are acting independently of each other.

Flat rate – is a rate that is the same in all cases and that does not vary in proportion with something.

In-kind contribution – means the fair market value attributed for goods; and, the fair value attributed for services, that are contributed to a Cluster and require no outlay of cash during the term of the CA by a recipient or a Cluster contributor. These contributions must be eligible costs. They will not be reimbursed by AAFC. Salaries are not considered eligible for in-kind contributions as there is a cash outlay provided by you.

Per diem – an allowance or payment made for each day.

Recipient – is an entity that either has been authorized to receive a transfer payment or that has received that transfer payment.

Transfer payment - is a monetary payment, or a transfer of goods, services or assets made, on the basis of an appropriation, to a third-party, including a Crown corporation, which does not result in the acquisition by the Government of Canada of any goods, services or assets. Transfer payments are categorized as grants,



contributions and other transfer payments. Transfer payments do not include investments, loans or loan guarantees.

Travel status - occurs when a person, conducting Cluster activities, is more than 50 kilometers away (one way) from their assigned workplace using the most direct, safe and practical route, usually for more than one day.

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Annex A: How to Apply

1. General Information

1. AAFC will provide you with a Cluster application form (PDF format) by email along with a PMT template and peer review summary template. Once completed, please submit the Cluster application form through the Grants and Contributions Delivery System (GCDS) platform, and the activity proposals, PMT and peer reviews for each activity by email.
2. Use the step-by-step instructions below to help you complete your application form. Each sub-section below refers to a tab or a section in the application form.
3. Review the list of additional documents required to ensure you have all the documentation needed to complete and submit your application package.

The information and instructions in this Annex are presented in a manner that corresponds to the application form. If you experience any trouble submitting your application, please contact us by telephone at 1-877-246-4682 or by email at: aafc.agriscienceprogram-programmeagri-science.aac@agr.gc.ca.

1.1 Applicant information tab

AAFC will use the information you provide in this section to establish your organization's identity.

Organization type

See section 1.3 of the Applicant guide to determine if you are eligible to apply under this program.

Legal name

Your organization's legal name, as it appears in legal documents such as articles of incorporation.

Operating as (if used)

Enter the name under which your organization operates, if that name is different from its legal name.

Canada Revenue Agency (CRA) business number

A CRA business number is a nine-digit number that gives each registered business its own unique identifier. For more information on obtaining a CRA business number, visit the CRA business number web page. (<https://www.canada.ca/en/services/taxes/business-number.html>). If you do not have a CRA Business Number, or do not wish to share it at this time, enter nine zeros (for example, 000000000).

Primary contact

Enter the contact information of the person in your organization who is responsible for responding to inquiries regarding this application.



Project contact

If your project is approved for funding, this is the person who will be liaising with AAFC during the project. This person can be the same as the Primary Contact.

Mailing address

Provide the complete address of your organization's headquarters.

Primary project location

The primary location the Cluster will take place if different than your organization's headquarters, if applicable. As the project locations may be different for each activity, each activity location should be identified in the work plan.

1.2 Organizational capacity

AAFC will use the information you provide in this section to understand more about your organization and assess your ability to manage and maintain this Cluster.

How many employees work for your organization?

Include the number of all full-time and part-time employees on your organization's payroll. Do not include contractors.

Describe your organization

Provide your organization's mandate and priorities. Include a brief history of the organization including any significant changes in the past two years (such as, a significant increase/decrease of staff, changes to executive leadership, including the Board of Directors, a change in mandate, etc.).

Does the mandate of your organization focus on any of the following groups?

This question is for statistical purposes and may be used for assessment.

Indigenous

Individuals who are:

- Registered on a band list
- Registered as an Indian under the Indian Act living both on or off reserves

or, Indigenous communities and governments such as:

- Band and tribal councils
- Governments of self-governing First Nations
- Local governments of Inuit communities
- Métis organizations



Persons with disabilities

The Employment Equity Act defines persons with disabilities as persons who have a long-term or recurring physical, mental, sensory, psychiatric or learning impairment and who:

- (a) Consider themselves to be disadvantaged in employment by reason of that impairment
- (b) Believe that an employer or potential employer is likely to consider them to be disadvantaged in employment by reason of that impairment

Includes persons whose functional limitations owing to their impairment have been accommodated in their current job or workplace.

Visible minorities

The Employment Equity Act defines visible minorities as persons, other than Indigenous peoples, who are non-Caucasian in race or non-white in colour.

Women

Individuals who are born female or who identify as female.

Youth

Individuals aged 30 and under.

Not Applicable

Use this section if the mandate of your organization does not focus on any of the above-listed groups.

Decline to identify

Use this section if the mandate of your organization might focus on one of the above groups, but you do not want to disclose that information at the time of your application.

Previous funding

Please identify if you or your organization have previously received funding from AAFC since April 1, 2013. If yes, list the program(s) from which you have received funding and the amounts received.

Capacity to deliver this project

This long-form response should answer the following questions:

- Has your organization managed other Clusters/projects on a similar scale to this proposed Cluster application? If so, briefly describe the past Clusters/projects.
- What resources do you have to ensure this proposed Cluster will be successful (e.g. human resources, financial management practices etc.)? Expand on the following:
 - Who will provide overall project management for this Cluster? Include the name and some background about the project Lead.
 - Who will be providing overall research co-ordination?
 - Who will conduct financial management, including the AAFC financial reporting requirements process under the CA?
 - Who will monitor and report on Cluster performance?



- Who will lead communication, KTT?
- What other technological and operational staff will be involved?

1.3 Project information tab

Note: for the purpose of this section, the term “project” refers to the overall Cluster.

AAFC will use the information in this section, in conjunction with your proposed work plan and budget to complete a full assessment of your project.

Project title

Provide a brief project title that accurately reflects the activities and intended results of the Cluster.

Project objective

This short-form answer should be a concise summary of your Cluster (in other words, how would you briefly describe your project at a high-level to a non-technical friend or colleague, or on social media). Please note that if your Cluster is chosen for funding, this summary may be published on Government of Canada websites.

Environmental considerations

1) Is your Cluster/project on federal land?

All projects must comply with the *Canadian Environmental Assessment Act 2012* (CEAA 2012), the applicability of which will depend on the type of activities being undertaken as part of the project and the project location. To help us determine this, you are asked to indicate whether the project is on federal land. Under CEAA 2012, federal land means:

a) Lands that belong to Her Majesty in right of Canada, or that Her Majesty in right of Canada has the power to dispose of, and all waters on and airspace above those lands, other than lands under the administration and control of the Commissioner of Yukon, the Northwest Territories or Nunavut;

b) The following lands and areas:

- The internal waters of Canada, in any area of the sea not within a province,
- The territorial sea of Canada, in any area of the sea not within a province,
- The exclusive economic zone of Canada, and
- The continental shelf of Canada; and

c) Reserves, surrendered lands and any other lands that are set apart for the use and benefit of a band and that are subject to the *Indian Act*, and all waters on and airspace above those reserves or lands.

2) Have you received, initiated, or do you anticipate requiring any local, provincial, territorial, federal environmental authorizations related to this project (this does not include electrical, hydro or gas permits)?



If a project is on federal land, additional legislative requirements such as permits or authorizations may be needed before a project can begin. AAFC staff will follow-up with you for further details and/or to clarify, as required.

You are also asked to indicate in the application form whether you have or will obtain federal, provincial, territorial or municipal environmental authorizations or permits, for example a municipal wastewater discharge authorization. Copies of these authorizations or permits might be required by AAFC during the application assessment.

If you have applied for any of the above mentioned permits, provide details on whether the project has any environmental effects and risks. Positive or negative environmental effects and risks can include those related to air emissions, soil erosion, noise, effluent, waste water, solid waste, odour, construction, rare species and habitat, nearby bodies of water, and any other public concerns. AAFC reserves the right to request additional information.

- 3) Does the Cluster/project pose any risks or result in any environmental effects, including any positive or negative effects on the surrounding environment?

Environmental effects could include those related to air emissions, noise, effluent, waste water, solid waste, odour, soil erosion during construction, rare species, species habitat, nearby water bodies, and any public concern.

1.4 Project data collection

We will be using the following questions for assessment and reporting purposes. The purpose of collecting this information is to align the program funding to areas where there may be gaps and to avoid duplication of Cluster activities across the program's Clusters/projects. However, each Cluster will be assessed based on its own merit and the impact and relevance of the results for Canadian agriculture and citizens.

North American Industry Classification System (NAICS)

NAICS is an industry classification system developed by the statistical agencies of Canada, Mexico and the United States. For more information, visit the Statistics Canada website at:

<http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=307532>

The NAICS identifiers that best suit this program have been selected for assessment and reporting purposes. The list has been narrowed down by classifying them into one of the following NAICS identifier types:

- Agricultural Production
- Food and Beverage Manufacturing
- Other Manufacturing
- Other

We recognize that not all Clusters will fit perfectly into one identifier; if this is the case for your Cluster, select the identifier that best defines the overall intent of your Cluster. You will have the opportunity to select a specific identifier for each activity in the work plan.



Select any of the following groups who will directly benefit from the intent of this Cluster's activities

- Indigenous
- Persons with disabilities
- Visible minorities
- Women
- Youth
- Not applicable
- Decline to identify

Official languages

AAFC is committed to enhancing the vitality of the official language minority communities (OLMCs), supporting and assisting their development, and promoting the full recognition and use of both English and French in Canadian society.

OLMCs consist of Francophones outside Quebec and Anglophones in Quebec. These communities are often represented by national and regional organizations.

When it is determined that Clusters under this program involve activities related to the development and transfer of knowledge and may have an impact on OLMCs or are susceptible of promoting the use of English and French, AAFC will include appropriate linguistic commitments in agreements with your organization and ensure that additional expenses incurred as a result of these commitments are considered eligible for contribution funding.

Impacts on OLMCs may include: Diversifying or strengthening the economic base of OLMCs, or increasing investments in businesses located in OLMCs.

Promoting the use of both official languages may include: translating tools and best practices to share them with OLMCs, or facilitating networking and collaboration between both linguistic communities to achieve tangible economic results in OLMCs.

The recipient must publicly acknowledge AAFC's support for the Cluster. The department may request that such acknowledgments include text in both official languages.

1.5 Work plan tab

Applicants must complete and submit a summarized work plan for each activity. Please follow the instructions below when completing the work plan section of your application:

Activity numbering

- Mandatory activities: Science Co-ordination must be Activity 1, KTT be Activity 2 and Impact assessment (for returning Clusters only) must be Activity 3.
- Non-mandatory research activities start at Activity 4 (or Activity 3 for new Clusters).



- Note when an activity is being done in partnership by both AAFC and industry, separate the work to be performed by AAFC under its own separate activity number (for example, activity 4A for Vote 1 and 4B for Vote 10)

Activity 1: Science co-ordination

- Science Co-ordination involves the co-ordination of Cluster science and research activities such as coordinating and liaising with Principle Investigators, aligning research with Cluster research strategies, reviewing research results, Science Advisory Body (SAB) costs, etc. It may include salary, travel, contracted services and other direct project costs. The financial audits must be charged under this activity. Where an employee/contractor conducts project management/administration and science co-ordination, their time must be split between administrative costs and science co-ordination. No additional administrative costs may be charged under science co-ordination.

Activity 2: KTT

- To ensure that knowledge and technology resulting from investments in science better reach the end user and are readily available, Clusters must address KTT in their application.

While KTT related to scientific dissemination (for example, academic publications, conference papers, or scientific lectures) directly related to an activity may be addressed within each respective activity, the second activity of an AgriScience Cluster must outline the steps that will be taken to efficiently transfer the knowledge, technology and results to the whole sector beyond the scientific community, leading to adoption by producers and/or processors. Note that costs related to KTT for individual activities can be included in the individual activities' respective budgets.

You are expected to consider the following components in your KTT strategy:

- Audience:
 - Identify specific audiences who can benefit from the results of current or recent research funded under the AgriScience Program.
 - Involve partners in the research or planning and execution of KTT strategies and explain the value to audiences.
- Approach:
 - Describe the suitability and feasibility of KTT activities for the audience(s) and the type of media that will be used. Applicants are encouraged to consider different audiences and products.
 - If the intended end-users are researchers and the scientific community, traditional KTT such as academic publications, conference papers and scientific lectures is acceptable. If the intended end-users also include producers and other participants in the value chain, the KTT plan must be comprehensive and include a plan that outlines a strategy for engagement and adoption of the research results.
- Implementation:
 - Describe the KTT's team's capacity and expertise and how you will leverage partner communication channels and networks.
 - Describe how you will measure uptake of the results.



Examples of eligible KTT activities include:

- Dissemination of results to producers (such as field days, demonstrations, case studies, videos and other formats) to help the sector leverage the results of funded initiatives.
- Technology transfer collaborations that seek to further research, development, and commercialization for levels 4 to 7 on the Technology readiness level scale.
- Publications, media outputs and other initiatives meant to reach a broad audience and improve the potential for adoption

Activity 3: Impact assessment (for returning Clusters only)

- Please refer to Schedule C: Impact Assessment Guidelines

Step-by-step work plan guidance

Work plan components	Description	Possible selection
Activity name and dates	Fill out the activity name, number, start date (April 1, 2023 or later) and end date (March 31, 2028 or earlier)	
Activity to be undertaken by	Select whether the work will be undertaken by AAFC or industry/other	<ul style="list-style-type: none"> ▪ AAFC (CRDA) ▪ Industry/Other (CA)
Activity theme	<p>Select the primary priority area (theme) that applies to the activity, based on the intended impacts and associated performance measures.</p> <p>If you select the Climate Change & Environment priority area, indicate whether the primary focus of this activity is related to carbon sequestration or GHG reduction. If the primary focus of the activity is carbon sequestration or GHG emissions reduction, the maximum cost-share ratio allowed is 70:30. The maximum cost-share ratio allowed for all other activities is 50:50.</p>	<ul style="list-style-type: none"> ▪ Climate change and environment <ul style="list-style-type: none"> ○ sub-selection: Carbon sequestration/GHG reduction (Yes/No) ▪ Economic growth and Development ▪ Sector resilience and Societal Challenge ▪ Mandatory Activity (Science Co-ordination, KTT, Impact Assessment)
Activity priority ranking	<p>Select a priority ranking for each activity relative to their importance for industry.</p> <p>Each ranking must equal 1/3 of all non-mandatory activities. For example, if there is a total of 18 activities, 6 activities should be ranked as low, 6 as medium and 6 as high.</p>	<ul style="list-style-type: none"> ▪ Low ▪ Medium ▪ High
Activity risk	Select the risk level for each activity. This ranking will not have an impact on the decision to fund an activity. The risk levels, which can include aspects related to technical, financial or execution risk, can	<ul style="list-style-type: none"> ▪ Low ▪ Medium ▪ High



Work plan components	Description	Possible selection
	<p>be defined as the following:</p> <ul style="list-style-type: none"> - Low risk: The activity has a low or no likelihood for performance shortfalls with respect to achieving established performance milestones and outcomes. - Medium risk: The activity has a medium likelihood for performance shortfalls with respect to achieving established performance milestones and outcomes. - High risk: The activity has a high likelihood for performance shortfalls with respect to achieving established performance milestones and outcomes. 	
Description	<p>Provide an overview of the following components:</p> <ol style="list-style-type: none"> 1. Activity objective: Provide a high-level summary of the activity in plain language and explain what it aims to achieve. 2. Description of activity: Provide an overview of work to be undertaken in order to meet the objective and the expected results. This should include a description of the science methodology. Where proposed activities are a continuation of work supported under previous science Clusters, you must demonstrate how the current proposal advances the science relative to the previous work. 3. Risks: Include any relevant activity risks and appropriate mitigation measures 	
Outcomes and Impacts for the sector	<p>Indicate the intended impacts of the activity in the applicable priority areas and how you intend to achieve them (linking back to the intended impacts for the overall Cluster).</p>	
Milestones	<p>Provide a breakdown of the activity milestones and, if available, indicate by fiscal year (April 1-March 31).</p>	
NAICS code	<p>Select the identifier that best defines the overall intent of the activity.</p>	<p>For Mandatory activities (Science co-ordination, KTT and Impact assessment), select the NAICS identifier type: Agricultural production and the NAICS identifier: 1151: Support activities for crop production</p>



Work plan components	Description	Possible selection
Names of peer reviewer and score	Enter the names and scores of peer reviewers. Please refer to Annex E: Peer Review for instructions.	This section will accept any score system from peer reviewers that has a value between 0 to 100 with up to one decimal (for example from 0 to 5, from 0 to 10 or from 0 to 100).

1.6 Performance information

Cluster applicants are required to provide a detailed description of performance information for the Cluster as a whole and for individual research activities.

Overarching narrative for each priority area

Based on your Cluster’s strategic plan and planned research activities, explain how your Cluster will advance your sector in each of the three priority areas (Climate Change & Environment, Economic Growth & Development, and Sector Resilience & Societal Challenges) and outline the issue(s) and/or gap(s) that your Cluster will respond to and address. Utilizing both quantitative and qualitative measures, estimate your Cluster’s overall expected benefits, results, and sector impacts for each of the priority areas. Note that you will be required to report on progress at the mid-point and end of the program.

Quantitative measures should be sector level impact measurements such as measurements of GHG emissions, water usage, yields, cost savings, exports, input usages, antimicrobial usage, disease resistance, drought resistance and/or mortality and injury rates. This is not an exhaustive list, and you can utilize measures that would best describe your Cluster’s sector impacts and results. They should not include output measures such as number of technologies, publications, or presentations.

Intellectual property

Describe, in high-level terms, any possible IP components that will arise from research activities.

Intended beneficiaries

Describe who are the intended beneficiaries of your Cluster’s research, how you will transfer the results of your Cluster’s research to the intended beneficiaries, and how you will measure uptake of the results (i.e. surveys, data collection). Clusters are encouraged to think about different strategies to capture KTT their sector and evidence of uptake by beneficiaries in order to demonstrate the relevance of the research and to report to funders and stakeholders.



Individual PMT

You are required to complete a PMT for each research activity. The PMT will be evaluated as part of AAFC's assessment of your Cluster proposal. If an activity is approved, you will have the opportunity to make minor adjustments to the PMT before it is included in the CA. Please refer to Schedule C: Performance measures.

The individual PMT for each research activity must be submitted by email to the program contact email. It is recommended that you compress (zip) a folder containing all documents to facilitate their submission.

1.7 Project costs and budget tabs

Cluster applicants are required to complete a detailed budget template in the application form in the Project Costs tab and identify each expenditure for Vote 10 and Vote 1 activities. At the application stage and for the purpose of the assessment of the budget, applicants must provide details for all contracted services on an individual cost item basis. In cases where this is not possible, all quotes from service providers must include a detailed breakdown of costs consistent with Annex B and be submitted as part of the application package. At the CA stage, the budget will reflect the total of contracted services for each activity based on the application package. Individual cost items from contracted services will not be reflected in the CA.

Until a CA and/or CRDA are signed, the budget submitted by applicants at the application stage is not considered final and certain modifications may be made by AAFC during the assessment process.

Cost-sharing under your CA (Vote 10)

Your portion of the cost-share can be comprised of both cash contributions and in-kind contributions. In-kind contributions can only account for a maximum of 10% of total Cluster costs under the CA.

Cost-sharing under your CRDA (Vote 1)

Your portion of the cost-share is made as a direct payment to AAFC. On a case-by-case basis, AAFC may consider your resources as part of your cost-share up to 10% of the total industry contribution in the CRDA. In-kind contributions will be managed on an activity-by-activity basis.

Science Service Charge under your CRDA

AAFC has streamlined the rates it charges for CRDA projects to a single 10% science service charge. This charge will be applied consistently to all Vote 1 allocations and collaborator contributions that support the CRDA activity. The science service charge will not be added on any collaborator contribution that is expended on salaried personnel (i.e., AAFC salaried employees) hired for the CRDA activity. These charges will be collected by Science and Technology Branch at the Research & Development Centre where the science activity is taking place, and will be included in the budget as a separate cost category in Vote 1 activities. The science service charge should not be considered as an overhead charge.

For more information on funding details, eligible costs, eligible cost dates, and definitions of cash and in-kind contributions, refer to the Applicant guide and Annex B: Cost Categories.



Budget summary tab

If the Budget summary tab does not show in its entirety because there is a large number of activities in the application, you must click on the “Hide All Details” function at the top right of the tab. This function will compress the details related to individual activities in the tab and will allow you to see the summary tables in their entirety.

1.8 Peer Review

All individual Cluster research activities included in a Cluster application must be assessed by independent peer reviewers, through a process led by the applicant and consistent with the AAFC Guidelines for the Peer Review Process of Science Cluster Proposals. Refer to the additional documents section below and Annex E: Peer Reviews for more information.

The individual peer reviews for each research activity must be submitted by email to the program contact mail. It is recommended that you compress (zip) a folder containing all individual peer reviews to facilitate their submission.

1.9 Additional documents

In addition to the application form, work plan and budget, the following documents are required as part of a complete application package:

Document name	Description
Executive summary	A brief summary that links proposed activities to the project objectives and priorities.
Strategic plan of the Cluster	Applicants must include a copy of the current strategic plan for the organization. If no plan is available, please briefly describe the short and long-term objectives of the organization and why you are doing the proposed research. For this requirement, applicants should identify who is guiding the science activities and where is the market pull. Applicants should also specify how the organization is engaging with participants along the value chain to position the science for adoption.
Full Cluster activity proposals (received from industry during your call for proposals and adjusted following peer reviews)	Full, final Cluster activity proposals in the format in which you received them from industry during your call for proposals. They must include full work plan details with a detailed budget, including research methodology, collaborators, capacity, etc. Note that the all activity proposals must be submitted by email and not through the GCDS platform.
A copy of the applicant organization's Certificate of Incorporation or Articles of Incorporation	Certificates and Articles of Incorporation are issued and filed, respectively, by or with provincial,



Document name	Description
	territorial or federal government that document the applicant's status as a legal entity.
Financial statements	Statements for the last two years (Audited or Review Engagement)
Letters of Financial Support	<p>Letters outlining confirmed financial support (cash or in-kind) from all financial contributors to the project, other than the Applicant must be provided. This includes other industry groups or government organizations.</p> <p>It is recommended that you integrate all letters of financial support into one single file (PDF or Word version) in order to respect the maximum number of attachments the GCDS system can receive with your application (60).</p>
<p>Letters of Acknowledgement from all research organizations identified in the Application, Work Plan or Budget (includes AAFC and organizations external to AAFC) (not required if your activity proposals are already signed by authorized representatives such as AAFC Directors or senior organization executives)</p>	<p>For AAFC: Letters from AAFC Directors responsible for work to be conducted by AAFC personnel are required. These will solely confirm that the scientific and technical capacity is available to conduct the work, should the project be approved, and would not infer an acceptance/approval of the proposal.</p> <p>External to AAFC: The letters must make specific reference to the proposed activities in the Work Plan, and confirm their availability to do the work. Letters must come from a senior executive authorized to sign the letter on behalf of the organization.</p> <p>It is recommended that you integrate all letters of acknowledgement into one single file (PDF or Word version) in order to respect the maximum number of attachments the GCDS system can receive with your application (60).</p>
Project Endorsement Letters/ Letters of Support (if available, not a requirement)	<p>Letters of support from organizations indicating they believe there is a need for the proposed project and expressing hope that the proposed project will be accepted.</p> <p>It is recommended that you integrate all letters of endorsement and support into one single file (PDF or Word version) in order to respect the maximum number of attachments the GCDS system can receive</p>



Document name	Description
	with your application (60).
Capital Asset Pre-approval	For Capital Costs to be purchased for the Cluster that are over \$100,000.
SAB - Peer Review Summary	<p>The form must be signed by the SAB Chair, attesting that an independent peer review has been conducted, and documenting changes made to the Cluster application (or individual research projects that are part of the proposal) as a result of peer reviews and SAB deliberations.</p> <p>Also attach the following to the summary:</p> <ul style="list-style-type: none"> • A list of independent peer reviewers including, at a minimum, each reviewer's name, title, organization and area(s) of expertise; • A list of SAB members including, at a minimum, each member's name, title, organization and area(s) of expertise; and, • SAB meeting agenda and minutes. • All peer reviews. Note that all peer reviews must be submitted by email and not through the GCDS platform.
PMT for each activity	A completed PMT must be submitted for each activity. Note that the PMT must be submitted by email and not through the GCDS platform.
Consent to share a summary of the Cluster Proposal and Consent for Use, Disclosure and Copyright (consent is voluntary and does not affect assessment)	Written consent to share a summary of the Cluster Proposal and other documentation with other federal, provincial and territorial governments, for purposes such as improving collaboration amongst governments, identifying other funding sources, etc.

The maximum size for individual files that can be submitted through the GCDS system is 5 Mb. Individual files exceeding this size can be sent by email to the program officer assigned to the assessment of your Cluster.

2. What you must declare

Unpaid debts to the Government of Canada

The recipient of AAFC funds must declare any amounts owing to the Government of Canada. Any amounts due to the recipient under AAFC programs may be set off against any such amounts owing to the Government of Canada under any agreement or any legislation with the Government of Canada.



Lobbying activities

The applicant must ensure that a person lobbying on behalf of the applicant is registered and in compliance with the Lobbying Act. More information on the obligations in the Lobbying Act can be found on the website of the Commissioner of Lobbying of Canada.

Conflict of Interest

Current or former public servants or public office holders are required to avoid conflict of interest situations while employed by the federal government, and for a period of time following their service. The Applicant acknowledges that any individuals who are subject to the provisions of the Conflict of Interest Act, the Values and Ethics Code for the Public Sector, the Conflict of Interest Code for Members of the House of Commons, any applicable federal values and ethics code or any applicable federal policy on conflict of interest and post-employment shall not derive any direct benefit resulting from this application unless the provision or receipt of such benefit is permitted in such legislation, policy or codes.

Consent for Use, Disclosure and Copyright

Personal information will be treated and disclosed in accordance with the *Privacy Act*. You have the right to access your personal information held by Agriculture and Agri-Food Canada and to request changes to correct personal information by contacting the AAFC Access to Information and Privacy Director at ATIP-AIPRP@agr.gc.ca

For more information about AAFC's privacy practices, you may refer to the following Personal Information Banks: Public Communications PSU 914 and Outreach Activities PSU 938.

Business information will be disclosed in accordance with the provisions of the *Access to Information Act*. Information on the *Privacy Act* and the *Access to Information Act* is available at the following website: <http://laws.justice.gc.ca>. For further information about these Acts please contact the Access to Information and Privacy Director at ATIP-AIPRP@agr.gc.ca

Copyright permission

AAFC may disclose, reproduce and distribute any part of or the whole of the documentation provided in or with the application form, within AAFC and to its authorized third-parties, including other government departments, for purposes consistent with the receipt, assessment and subsequent treatment of the Application.

3. Other considerations

M-30 law (Quebec only)

The M-30 legislation applies for Quebec based applicants only. It is the *Act Respecting the Ministère du Conseil exécutif* (R.S.Q., c. M-30). Organizations located in Quebec and receiving more than half of their financing from the Government of Quebec may be subject to the Act. More information on the Act is available online or by contacting the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ) at dpci@mapaq.gouv.qc.ca



All Quebec based organizations will have to address this matter and demonstrate their compliance with the Act during the project assessment process, and prior to entering into a CA.

Intellectual property

Should the Cluster funding proposal be approved, specific IP requirements relevant to the Cluster project(s)/activities will be included in the CA and/or CRDA.

4. Submit

If you need support in preparing the application form or in case of troubleshooting, we encourage you to share a draft of the application form with the program officer assigned to your Cluster before submitting a final version.

Before you submit your application form, please use the “Check for Errors” function at the top right of the application form to ensure that the form is complete and respects all program parameters. Once the application form is complete, you can submit it with all required attachments through the GCDS platform in the Submit tab. All activity proposals, PMT and peer reviews must be sent to the AgriScience program contact email. Please ensure you identify your project number in any correspondence with the program.

For more information on AgriScience Program (Clusters component), please contact us by:

Email: aafc.agriscienceprogram-programmeagri-science.aac@agr.gc.ca

Telephone: 1-877-246-4682

TDD/TTY: 613-773-2600

Mail:

Agriculture and Agri-Food Canada
AgriScience Program
1341 Baseline Rd, Tower 7, Floor 8
Ottawa, ON K1A 0C5

5. Assessment timelines

Once an application has been submitted, an acknowledgment notice will be forwarded to the applicant. Applicants should not consider their application as submitted to the program until they receive this acknowledgement notice; if it is not received within 2 business days, please contact us.

In order to begin the assessment, an application must be deemed complete by AAFC. After an application has been received, AAFC will verify that all required forms and declarations have been completed and there is sufficient detail in the application for a full assessment. When the application has been deemed complete and ready for assessment, notice will be provided to the applicant.

Subsequently, a full review and assessment of the application will be carried out by AAFC and, if an Applicant is successful, AAFC will provide a written decision letter which will outline the level of assistance awarded and any other conditions if applicable (for example, reduced funding or activities). Unsuccessful Applicants will be contacted by AAFC and will receive a rejection notification letter.



Our goal is to:

- Respond to general inquiries made to our phone number or email address before the end of the next business day
- Acknowledge receipt of your application within 1 business day
- Assess your application and send you an approval or a rejection notification letter within 100 business days from the notification that an application package has been deemed complete

As program demand fluctuates, these standards may be updated to provide more accurate timelines. Updates will be posted on the program website.

Please note that the submission of an application creates no obligation on the part of AAFC to provide funding for the proposed Cluster.

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Annex B: Cost Categories

The following cost categories provide details on costs and requirements that will be necessary at the application stage and the financial reporting stage, should your application be approved and a CA signed.

Timing limitations for costs:

Any costs incurred before April 1, 2023 or after March 31, 2028 are ineligible for reimbursement under a CA and will not be accepted under a CRDA.

If your Cluster application is approved, AAFC may consider costs incurred during the review period to be eligible as long as they were incurred on or after April 1, 2023 and after an application package has been deemed complete by AAFC. Until a CA is signed, no commitment or obligation exists on the part of AAFC to make a financial contribution to a project, including any costs incurred or paid prior to the signing of a CA.

1. Administrative Costs

Administrative costs will be calculated automatically at a flat rate of 10% based on the total Vote 10 (CA) activity costs in the budget, excluding all capital expenditures. This flat rate will cover costs of project management and administrative staff salaries (managing and reporting), use of office accommodations, use of office equipment and use of office materials.

These administrative costs will be subject to the cost-sharing ratio of the Cluster. Should your Cluster be approved, the 10% flat rate will be applied to your actual eligible costs, excluding all capital expenditures, when you submit your financial reporting against your CA expenses.

The following list identifies costs that would be covered in the flat rate. These costs cannot be charged under salaries and benefits or other direct project costs.

The costs include, but are not limited to the following:

Administrative cost items

Project management and administration salaries and benefits:

- salaries, including contracted services, for project management and administration staff who perform tasks such as pay the Cluster related invoices, negotiate service contracts, manage the Cluster budget, and/or prepare any financial and/or performance/progress reports for the Cluster
- benefits for project management and administration staff such as Mandatory Employment Related Costs (MERCs), Employment Insurance (EI), Canada Pension Plan (CPP), Quebec Pension Plan (QPP), vacation pay

Administrative costs related to:

- audit fees related to the organization's financial statements
- bank fees
- insurance (fire, theft, liability)



- membership fees
- legal fees

Administrative office supplies and expenses:

- basic telephone fees (including fax lines) and cell phones
- hydro
- materials and office supplies (such as pens, pencils, paper, envelopes, cleaning supplies, subscriptions)
- monthly internet fees
- postage and courier fees
- office equipment (such as computers, printers, photocopiers)
- office administrative space (specifically, rent for administrative space) and related utilities, maintenance and property taxes
- administrative information technology (IT) products and services, including maintenance
- other overhead type expenditures relating to the organization’s office

2. Cost Categories Excluding Administrative Costs

Other costs beyond administrative costs must fall under one of these categories:

- salaries and benefits
- contracted services
- travel
- capital expenditures
- other direct project costs
- Science service charge

Note: Researchers from AAFC are the only eligible recipients of Vote 1 funding. Vote 1 research activities may include sub-activities with researchers from other federal departments only in the case where the activity’s principal investigator is an AAFC researcher. Please ensure that work conducted by other Government of Canada departments is clearly identified in the proposal and properly captured as Vote 1 in the budget.

Salaries and benefits

Eligible cost items	Limitations/ineligible costs
<p>Under a CA: Salaries and benefits of employees directly related to completing the activities of the work plan (other than those covered under administrative costs), including science co- ordination</p> <ul style="list-style-type: none"> • Timesheets: <ul style="list-style-type: none"> ○ <u>Will not</u> be required for an employee whose time is 100% devoted to the Cluster 	<ul style="list-style-type: none"> • Benefits will be considered up to 25% only and would include the employer’s portion of CPP, QPP; EI; group insurance, vacation pay, and pension benefits • Losses to investments or pensions due to stock fluctuations or other unforeseen events will not be eligible • Performance pay (such as a bonus), severance pay and retiree settlements are not eligible



Salaries and benefits	
Eligible cost items	Limitations/ineligible costs
<ul style="list-style-type: none"> ○ <u>Will not</u> be required for people under contract including research agreements ○ <u>Are</u> required for an employee of the recipient organization who shares their time between Cluster specific work and organizational work <p>Under a CRDA: Salaries and benefits are divided into two separate cost categories :</p> <ul style="list-style-type: none"> ● Salaries and benefits – university students: Includes students enrolled in a B.Sc., M.Sc. or PhD program. Student salaries are considered non-pay operations and are cost-shared between AAFC and industry. ● Salaries and benefits – Postdoc and other: Includes postdoctoral researchers and casual and term AAFC employees. Postdoctoral researchers and hired staff’s salaries are covered entirely by the industry contribution, as Vote 1 operating funding from AAFC cannot be used to pay salaries. <p>Note that salaries of non-incremental AAFC researchers and employees who already have their salaries covered cannot be included in an activity’s budget.</p>	<ul style="list-style-type: none"> ● Discretionary employee benefits (for example, parking at employer’s location, gym membership fees, etc.) are not eligible ● Relocation costs for employees hired for the Cluster are not eligible ● Only incremental salaries/benefits for salaries for Provincial, Territorial and Municipal government employees hired for the Cluster are eligible (that is, full- time employee salaries/benefits are not eligible); other restrictions may apply ● Scholarships and grants for university students ● Training for Cluster employees and staff
<p>Instructions for preparing the budget: For all Salaries and benefits expenditures listed in the budget, you must provide the following information in the description of each cost item:</p> <ul style="list-style-type: none"> ● Number of employees; ● Hourly rate and breakdown of benefits per employee; ● Number of hours per week and number of weeks per year; and ● Description of each employee’s role. 	



Contracted services	
Eligible cost items	Limitations/ineligible costs
<p>Professional or specialized services for which a contract is entered into, such as:</p> <ul style="list-style-type: none"> • Research agreements • Consultant/expert services • Science co-ordination services 	<ul style="list-style-type: none"> • All services, including research work should be established under a contract or a research agreement • Recipients must use a fair and competitive or otherwise justifiable and generally accepted sound business process that results in competent and qualified contractors working on the Cluster and Cluster activities • All such contracts or research agreements should include payment terms, including details budgets • Overhead costs for contracted services cannot exceed 15% of total eligible costs invoiced • Contracts for project management and administration services for overall Cluster management may be used, however these costs will be considered administrative costs (in other words, they are included in the 10% flat rate and are not eligible for additional reimbursement) • Service providers located within Canada should be used whenever possible. <p style="text-align: center;">Refer to the Contracted Services section below for more information</p>
<p>Instructions for preparing the budget:</p> <p>For all contracted services expenditures listed in the budget, you must provide the following information in the description of each cost item:</p> <ul style="list-style-type: none"> • The name of the service provider; • A description of how the contracted services fees have been established by the service provider (for example, hourly or daily rate, duration, etc.); • A description of the type of services that will be provided; • Where applicable, an explanation for why a service provider located outside of Canada is being used; and • Quotes must be available upon request by the program 	



Travel (based on an AAFC directive – subject to periodic change)	
Eligible cost items	Limitations/ineligible costs
<p>Travel costs directly related to the Cluster, such as:</p> <ul style="list-style-type: none"> • Meals, incidentals and accommodations on a per diem basis • Transportation (air, rail or ground) <p>Who can claim travel costs:</p> <ul style="list-style-type: none"> • Cluster staff travelling for Cluster related activities • Visitors to Canada for the purpose of Cluster related activities • Workers travelling to Cluster sites or meetings (ground and air transportation) • AAFC staff and researchers participating in Vote 1 research activities 	<ul style="list-style-type: none"> • Only economy airfare for travel is eligible; bookings should be made as far in advance as possible; seat selection and baggage costs are eligible (upgrades are not eligible) • If a higher class is purchased, proof of the flight’s economy rate must be obtained for reimbursement purposes • For ground transportation by car, a rate of up to \$0.575 per km will be accepted • Hospitality is not eligible • Travel insurance (such as medical, accident, cancellation) is not eligible • Non-essential options for rental vehicles (such as GPS and roadside assistance) are not eligible • Travel and accommodation expenditures for federal government employees that are not directly involved in a Vote 1 research activity are not eligible <p>Refer to the Travel section below for more information. Please note that travel rates are subject to change.</p>
<p>Instructions for preparing the budget:</p> <p>For all Travel expenditures listed in the budget, you must provide the following information in the description of each cost item:</p> <ul style="list-style-type: none"> • The number of trips, distance between each location (if a kilometric rate is used), and the start and end points for each trip; • If there is an overnight stay, the number of days for each trip, and whether a per diem or actual costs are used as a basis to determine travel costs; and • The specific reasons for each trip. 	



Capital assets (based on an AAFC directive – subject to periodic change)	
Eligible cost items	Limitations/ineligible costs
<p>Capital assets are tangible assets that are purchased, constructed, developed or otherwise acquired and:</p> <ul style="list-style-type: none"> • Are required for the execution of the Cluster’s activities • Have a useful life extending beyond one year and a per item cost greater than \$10,000 and are intended to be used on a continuous basis • Are not intended for resale during the life of the Cluster • The cost of which is considered to include the purchase price plus other acquisition costs, such as installation costs, freight charges, transportation insurance costs, duties, and the non- refundable portion of provincial sales taxes, GST/HST or other value-added taxes • Require AAFC pre-approval for costs over \$10,000 <p>Examples specific to this program:</p> <ul style="list-style-type: none"> • Research equipment • Computers and specialized software • Prototypes 	<ul style="list-style-type: none"> • The purchase of land or buildings are not eligible • The purchase or lease of private/personal vehicles are not eligible • Assets and capital items not specifically required for the execution of the Cluster are not eligible • Each capital cost estimated over \$100,000 to be included in the Cluster budget must be accompanied by a pre- approval form at the time of application • Each capital cost item estimated between \$10,000 and \$100,000 also requires pre-approval by AAFC, but can be submitted after approval of the Cluster application • Pre-approval by AAFC applies regardless of how it is cost-shared between AAFC, and other sources • Capital assets expenditures are not allowed in a CRDA’s budget. Any new capital assets required to execute the CRDA Activity will be managed internally to AAFC and in parallel to the final decision-making process.
<p>Instructions for preparing the budget: For all Capital assets expenditures listed in the budget, you must provide the following information in the description of each cost item:</p> <ul style="list-style-type: none"> • Description of the capital asset and its intended use for the research activity; • Where applicable, a pre-approval form must be completed; and • All quotes must be made available upon request by the program 	



Other direct project costs	
Eligible cost items	Limitations/ineligible costs
<ul style="list-style-type: none"> • Material and supplies • Shipping • Translation • Conference or registration fees • Knowledge transfer associated costs • Financial audits required for Cluster specific expenses when requested by AAFC 	<ul style="list-style-type: none"> • Any government related fees such as visas, patents, etc. are not eligible • Training for Cluster employees and staff • Annual general meetings are considered normal business practice and are not eligible costs

Instructions for preparing the budget:
 For all Material and supplies expenditures listed in the budget, you must provide the following information in the description of each cost item:

- Type of material or supplies;
- Quantity; and
- Price per unit.

If shipping fees are listed in the budget, you must provide the following information in the description of each cost item:

- Distance;
- Kilometric rate; or
- A description of the basis on which the shipping rates are calculated

Science service charge	
Eligible cost items	Limitations/ineligible costs
<p>A 10% science service charge will be applied automatically to all AAFC and industry Vote 1 contributions supporting the non-pay operating expenses for CRDA activities. These charges are collected by the Science and Technology Branch to support the project work and do not represent overhead costs.</p>	<ul style="list-style-type: none"> • The science service charge is not applied to salaries and benefits for postdoctoral researchers and any other incremental AAFC personnel.

Other ineligible project costs include, but are not limited to:

- Normal costs of establishing a commercial operation
- Costs for activities that are deemed to be part of normal business practice for any recipient
- Costs for activities intended to directly influence/lobby governments
- Costs related to marketing activities and business promotion
- Hospitality costs
- Costs to prepare the CA or related schedules
- Refundable portion of the GST/HST, value-added taxes, or other items for which a refund or rebate is receivable
- Depreciation charges for capital assets
- Other costs not specifically required for the Cluster



Note: When universities and colleges provide services (such as employee/researcher time) and/or goods that are not reimbursed by a recipient (such as material and supplies required in a research activity) for a Cluster under a service contract/research agreement, for which the institution is not reimbursed by the recipient organization or another Cluster participant/contributor, these services and/or goods may only be included in the Cluster expenditures as an in-kind contribution.

3. Contracted Services

3.1 Requirements

1. Overhead costs under contract

- Overhead cannot exceed 15% of the total eligible costs invoiced by the university or service provider
- Overhead is calculated as an additional 15% cost on goods/services (for example: \$10,000 cost of services $\times 0.15 = \$1,500$; for a total invoice, including overhead, of \$11,500)
- Overhead costs are indirect expenditures incurred by a university or service provider, which are required for the research activities, but are not specifically identified as Cluster activity costs. These costs relate to the use of the organization's resources, which may include, but are not limited to:
 - Information technology support
 - Internet and telephone, excluding long-distance charges
 - Use of photocopiers, fax machines, and other office equipment
 - Use of existing workstations, including furnishings and equipment (for example, computers or scanners)
 - Normal office software (not including software specifically required to conduct Cluster activities)
 - Memberships and subscriptions
 - Staff recruitment and training
 - Routine laboratory and field equipment maintenance (such as oil changes)
 - Building occupancy and operating costs (that is, the use of the workspace)
 - Facilities maintenance
 - Administrative support (such as accounting, payroll administration, meetings)

2. Down payments or advance payments in contracts

- Down payments or advance payments due to contractual obligations are allowed to be claimed
- Where used, payment schedules should be aligned with incurred costs and the timing of milestones or deliverables

3. Contracts, including research funding agreements, and verification of expenditures

- Should be rigorous enough to ensure that payments will be subject to costing details and timing of incurred costs
- Recipients may be required to share with AAFC, a copy of service contracts for work conducted under the Cluster



3.2 Guidance*

For many approved Clusters, a significant portion of the work will be completed under contract by universities or other organizations on behalf of the recipient. To better ensure that the work is aligned with the requirements of the CA, it is recommended that the following points be considered before putting in place a contract/agreement with a service provider:

- The recipient is not an agent of Her Majesty the Queen or the Government of Canada
- The recipient is fully responsible for funds disbursed under the CA, including costs incurred by service providers (such as universities)
- It is the responsibility of the recipient to ensure that all costs from service providers are eligible project costs (in other words, to ensure that both you and AAFC are only paying for Cluster activity-related costs under contract)
- Work required to complete your Cluster activities is considered to be work under contract if it is not work performed by your organization
- As the CA is an agreement between you and AAFC and not with any other organization (such as service providers), there should be no reference to “the Minister, AAFC or the Crown” anywhere in your contract/agreement between you and any other party who performs work for the C
- While the CA lists requirements, terms and conditions that you must follow, it should not be used as a template for your contracts/agreements with other parties
- There is a difference between an agreement to fund a recipient and an agreement to allow a recipient to further distribute funds to other ultimate recipients; to be clear, the CA you sign with AAFC is an agreement with you and not your contractors (in other words, accountability for the Cluster and its activities rests with you)
- If you pay a service provider for costs that are ineligible, they will not be eligible for reimbursement by AAFC and also cannot be counted as an industry contribution towards the Cluster; likewise, if service provider costs are reimbursed to you by AAFC under a CA and subsequently deemed ineligible (for example, during a recipient audit), you are solely responsible for repaying those costs to AAFC
- AAFC may only undertake a recipient audit with the recipient, as per the agreement, not with the service provider; again, the service provider is under your responsibility
- It is recommended that you keep written procedures of your contracting or procurement practices and of the process regarding validation of expenses (such as sampling) of other service providers or contractors; these documents may be helpful in satisfying an auditor that the practices of your organization are clear, understood and followed by your employees
- Sampling done by you to verify details of a service provider’s invoice should be done on a risk-based approach (for example, a 10% sampling of costs on an invoice)

3.3 What to include in a contract or agreement*

The terms of written contracts between the recipient and service providers who conduct research on behalf of the recipient should address the following:

- Specific details of the work being done, who is doing the work and what will be delivered
- Clear milestones and timelines for the completion of the work
- detailed breakdown of the budgeted costs (such as hourly/daily rates for salaries and number of positions, list of required supplies and related costs)



- invoicing details, including when invoices are to be submitted and the level of detail they should contain to ensure that the costs invoiced can be verified by the recipient for eligibility and reasonableness
- the sampling process to be used to confirm costs; it is recommended that the recipient establish a sampling process based on risk
- reporting requirements (such as financial, progress and performance reporting)
- the right to access all Cluster activity-related documentation
- other responsibilities agreed upon between parties, including financial roles and contact information
- the provisions, as deemed appropriate, for oversight such as reviews and audits to be conducted by the recipient and the right of the recipient to provide copies of any review, evaluation or audit reports to third-parties
- the ability to claw-back or reduce further payments if costs sampled were deemed ineligible

*Note, in all cases, we advise you seek the advice of your legal counsel to ensure that your contract/agreement is appropriate.

4. Travel Costs

The following requirements are based on an internal AAFC directive that is subject to change periodically.

4.1 Requirements

1. Per diems are allowed when an individual is travelling to a destination located at least 50 km away from their assigned workplace using the most direct and practical route. Per diems will contribute to covering the costs for daily accommodation, meals, local or in-city transportation (buses, taxis, vehicle rentals, use of a private vehicle, etc.), ground transportation (including parking, to and from the public carrier terminal), entry documents (including passports and visas), all types of insurance, vaccinations and incidentals (personal phone calls, laundry, gratuities, currency exchange fees, etc.) for individual travel.
2. Recipients may:
 - a. Claim the established per diem; or
 - b. Claim an amount less than the established per diem (based on actual costs).

Whether using option (a) or option (b), individual invoices and proof of payment for these incurred travel costs will not be required for claims, however, proof of travel is required (for example, boarding pass, hotel invoice, trip report) and recipients are obliged to keep all invoices and proof of payment, as per the terms of their CA.

If using option (a) per diems are payable for every day on travel status as follows:

- i. Day trip within Canada with no overnight stay: \$100 CAD/day
- ii. Day trip outside Canada with no overnight stay: \$125 CAD/day
- iii. Travel within Canada with an overnight stay: \$400 CAD/day
- iv. Travel to United States with an overnight stay: \$475 CAD/day
- v. Any international trip, not including the United States with an overnight stay: \$575 CAD/day



3. The recipient may claim cost for air, rail and ground transportation to an out-of-city destination for individual travel as follows:
 - a. Air: economy rate (not business or first class) fare
 - b. Private vehicle: kilometric rates (at a rate of up to \$0.575 per km) as well as costs for parking at the destination. The kilometric rates can only be applied for the distance from an individual departure's location to the destination's location and for the returning trip. In-city transportation using a private vehicle is included in the per diem rates and cannot be claimed separately.
 - c. Rental vehicle: the cost for a mid-size vehicle (or the cost of a larger vehicle, based upon factors such as, but not limited to, safety, the needs of the traveler, and the bulk or weight of goods transported), gas, and parking at the destination

Recipients are obliged to keep all invoices and proofs of payment, as per the terms of their CA.

5. Capital Assets in CA

The following requirements are based on an internal AAFC directive that is subject to change periodically.

5.1 Requirements

1. All capital assets required for a Cluster must be eligible under program criteria.

5.2 Acquisition of Capital Assets over \$10,000

2. All capital asset purchases over \$10,000 must be pre-approved by the program using an AAFC form intended for that purpose.
3. The pre-approval process for acquisitions over \$10,000 will consider:
 - Alignment with program and Cluster objectives
 - The necessity and the cost of the asset as well as timing of the purchase (i.e. beginning vs. the end of the CA)
 - The residual value of the asset at the end of the CA
 - The possibility of resale (i.e. presence of a market for specified equipment)
 - The future need of the asset for the sector or recipient
 - The benefits of transferring the asset to another organization
 - The retention/disposition mechanism for the asset
4. Capital asset pre-approvals must include a rationale for the purchase and proposed retention or disposal.
5. This pre-approval requirement applies to any capital asset in a Cluster's budget, including cases where the asset acquisition is paid by the recipient or a partner/service provider (like a university) working on the Cluster (recipient contributions).
6. Pre-approval is required for any capital asset acquisition made by an applicant or recipient intended to enhance capacity in another agriculture, agri-food and agri-based sector (for example, by modifying or retrofitting a piece of equipment that would benefit another industry). Pre-approval for such acquisitions will consider the purchase cost, the residual value, retrofitting costs and the usefulness of the asset at the end of the agreement.



7. Where several similar or related assets are acquired within a Cluster, the cumulative cost of these assets should be considered as one and require pre-approval if over \$10,000. If the total value exceeds \$100,000, the capital asset is subject to section 11 to 13.
8. Purchased materials with the intention of building a capital asset (such as a prototype) must be pre-approved if the total value of materials exceeds \$10,000. If the total value exceeds \$100,000, the capital asset is subject to section 11 to 13.
9. A lease or rental fee for the use of a capital asset acquired by a recipient outside its current CA be considered in cases where the asset is needed by the recipient to achieve Cluster outcomes and the asset was not previously paid with federal government funding. Any proposed usage fee must be pre-approved by the program.
10. AAFC reserves the right to address capital asset requests on a case-by-case basis when required.

5.3 Acquisition of Capital Assets over \$100,000

11. Capital asset acquisitions over \$100,000 will normally be considered when the applicant includes the proposed acquisitions in the application budget. Applicants are required to submit in their application a rationale for the proposed acquisitions and outline future plans for retention or disposal. These acquisitions, including proposed retention or disposal, will be reviewed by the program during assessment and will require AAFC approval.
12. Capital asset acquisitions over \$100,000 and required to achieve Cluster outcomes will normally be leased where possible and appropriate. Proposed leasing costs to be claimed from contribution funds must be pre-approved by the program before they can be deemed eligible towards project costs.
13. Capital asset acquisitions over \$100,000 and not approved at the time of Cluster approval may be considered at a later date in exceptional cases, and will require approval by AAFC.

5.4 Retention or Disposal of Capital Assets

14. Capital asset acquisitions with a residual value of under \$25,000 at the end of the CA will normally be retained by the recipient or partner/service provider but will still require pre-approval by AAFC.
15. Where disposal of the asset is required, the residual value of the asset will be returned to AAFC or will be offset on the final claim or holdback, taking into account the cost-sharing ratio for the Cluster and the asset being disposed of.
16. The recipient will be required to provide an estimate of the fair value for the proposed assets (at the end of the CA using a method agreeable to both the recipient and AAFC. The CRA provides an acceptable depreciation model to determine the decrease in the value of an asset through age, use, and deterioration over time. Information on classes of depreciable property and rates are available on the CRA website (<http://www.cra-arc.gc.ca/tx/bsnss/tpcs/slprtnr/rprtng/cptl/dprcbl-eng.html>).
17. AAFC reserves the right to require disposal of an asset if the Cluster or Cluster activity is ended prematurely, or is terminated by default, regardless of the disposal or retention plan approved at the time of pre-approval.



Annex C: Performance Measures

1. Performance Measures Tables

Instructions (highlighted in yellow) to be removed once complete.
 Complete Tables A & B for each activity regardless if it is Vote 1 only, Vote 10 only or combined Vote 1 and Vote 10.

Priority Area Performance Measures – Table A

Activity 1: insert name of activity

(Refer to Schedule A at end of this document for guidance and examples, and remove this note once it is complete). There are no minimum or maximum number of indicators required; utilize the ones that best capture the intended results of the activity. You will not be required to report against Table A annually, only as part of the final performance report to ensure estimates are still valid.

Priority Area Insert Priority Area	Indicator Insert indicator from list provided in Schedule A	Baseline	Target
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			

Performance Measures – Table B

Activity 1: insert name of activity

(Refer to Schedule B at end of this document for guidance and examples, and remove this note once complete)

Performance measure	Target	Brief description of each target	Priority Tagging Refer to Schedule B for definitions	Technology Readiness Level Refer to Schedule C for definitions
Number of highly qualified personnel (HQP) working on funded activities			N/A	N/A



Performance Measures – Table B

Activity 1: insert name of activity

(Refer to Schedule B at end of this document for guidance and examples, and remove this note once complete)

Performance measure	Target	Brief description of each target	Priority Tagging Refer to Schedule B for definitions	Technology Readiness Level Refer to Schedule C for definitions
Number of knowledge transfer events organized for the scientific community and/or number of presentations made at a conference to share results with the scientific community			N/A	N/A
Number of knowledge transfer events organized to share results with potential adopters or to further commercialize the technology			N/A	N/A
Number of new knowledge transfer products developed			N/A	N/A
Number of papers published in peer reviewed journals			N/A	N/A
Number of new technologies that are developed				
Number of new Beneficial Management Practices (BMPs)				



Performance Measures – Table B

Activity 1: insert name of activity

(Refer to Schedule B at end of this document for guidance and examples, and remove this note once complete)

Performance measure	Target	Brief description of each target	Priority Tagging Refer to Schedule B for definitions	Technology Readiness Level Refer to Schedule C for definitions
that are developed				
Number of IP protection attained				N/A
Number of new technologies and BMPs, that are utilized/adopted (Any technology reaching commercially available stage.)				N/A

The following appendices provide guidance and examples when completing the PMT. Please remove them after the work plan is finalized.



2. Schedule A: Guide for completing the Priority Area PMT A

In the Priority Area Measures Table A, select indicators, which will best measure the impact of your research activity in the applicable priority areas from the indicators listed below. If there is not an appropriate indicator to use from the list, utilize a project specific indicator. Indicate a baseline, which is the starting point for comparison (such as a sector average) and an estimated target.

Indicators

Note: All estimates should be based on use of 1 technology for 1 representative* year or BMP for 1 representative year (per hectare, livestock unit or technology unit)

**Representative year reflecting the fact that some technologies/practices do not realize full benefits immediately.*

Climate Change & Environment

- Estimation of the potential annual reduction in Mt CO₂eq (per hectare, livestock unit or per technology)
- Estimation of the potential annual reduction in Mt methane
- Estimation of the potential annual reduction in synthetic fertilizers (per hectare)
- Estimation of the potential annual sequestration of Mt CO₂eq (per hectare)
- Estimation of the potential annual percent increase in food or agricultural waste being used
- Estimation of the potential annual reduction in energy use (based on use of 1 technology)
- Estimation of the potential decreased risk in soil health (percentage decrease in risk of soil loss, contamination by trace elements, the buildup of salt and the reduction of organic matter in the soil)
- Estimation of the potential decreased risk in water quality (Percentage decrease in runoff of nutrients, pesticides, herbicides, sediment, and bacteria)
- Estimation of the potential reduction in water usage.
- Number of technologies developed to support measurement, reporting, and validation of GHG emission reductions and carbon sequestration
- Other project-specific indicators submitted by the applicant

Economic Growth & Development

- Estimation of the percent increase in productivity (e.g. estimation of the percent increase in harvested crop yields per hectare, livestock feed conversion rates, etc.)
- Estimation of the percent reduction in labour costs/requirements per 1 year use of the technology
- Estimation of the annual economic savings resulting from the decrease in use of energy or inputs (fertilizer, fuel, herbicide, animal feed, etc.)
- Estimation of the economic value of the technology (projected value of IP of 1 technology)
- Number of jobs created as a result of the project
- Number of value-added agricultural products developed
- Other project-specific indicators submitted by the applicant

Sector Resilience & Societal Challenges

- Number of partnerships developed with underrepresented groups
- Estimation of the percent increase in resistance to diseases



- Estimation of the percent increase in resistance to drought
- Estimation of the potential annual reduction in pesticide use per unit or hectare
- Estimation of the potential annual reduction in herbicide use per unit or hectare
- Estimation of the annual reduction in use of antimicrobials per 100 animals
- Estimation of the potential annual decrease in animal mortality rates
- Estimation of the potential annual decrease in animal injuries
- Other project-specific indicators submitted by the applicant

Example of a completed Priority Area PMT A:

Priority Area Performance Measures – Table A			
Activity 1: Development of a precision planter that will apply fertilizer at the correct rate based on soil types and nutrient analysis.			
Priority Area	Indicator	Baseline	Target
Climate change & Environment - GHG reduction and carbon sequestration	Estimation of the potential annual reduction in synthetic fertilizers (per hectare)	180 pounds of Nitrogen fertilizer per hectare	120 pounds of Nitrogen fertilizer per hectare
Climate change & Environment - GHG reduction and carbon sequestration	Estimation of the potential annual reduction in atmospheric Mt CO ₂ eq (per hectare, livestock unit or per technology)	1.229 tonnes of CO ₂ e based on 450 litres of diesel per 1 hectare.	0.82 tonnes of CO ₂ e based on 300 litres of diesel per 1 hectare.
Economic Growth & Development	Estimation of the annual economic savings resulting from the decrease in use of energy or inputs (fertilizer, water, herbicide, animal feed, etc.)	\$441 for 180 pounds of fertilizer	\$294 for 120 pounds of fertilizer



3. Schedule B: Guide for completing the PMT B:

Use the following guidance when developing the Priority Area Measures Table B:

- Identify numbers of targets for the performance measures that are applicable to the activity
- The targets identified are for the duration of the activity
- Provide a brief description for each target
- For all technologies and BMPs, and IP, tag to the appropriate priority area and provide the targeted Technology Readiness levels (TRL).

Priority Tagging

Climate Change & Environment Sub-areas:

- Greenhouse gas emissions reduction
- Carbon sequestration
- Biodiversity
- Water quality
- Soil health
- Air quality
- Adaptation
- Plastic reduction
- Renewable energy
- Material bioproducts
- Circular economy
- Variety development (climate change & environment)

Economic Growth Sub-areas:

- Value-added
- Labour solutions
- Automation
- Market development
- Exports
- Production efficiency
- Artificial intelligence
- Big data
- Supply chain efficiency
- Product development/improvement
- Alternative production systems
- Variety development (economic growth)

Sector Resilience & Societal Challenges Sub-areas:

- Antimicrobial resistance
- Animal health and welfare
- Food safety
- Food security



- Biological alternatives
- Mental health
- Surveillance systems
- Variety development (sector resilience)

Example of a completed PMT B:

Performance Measures – Table B				
Performance Measures and Definitions	Targets	Brief Description of Each Target (What is the target?)	Priority Tagging	Technology Readiness Level
<p>Number of HQP working on funded activities</p> <p>Definition: This includes only individuals who are registered in Master or PhD or a post-doctoral fellow programs who are working on activities that receive funding through the program. They are only counted in their first year working on projects.</p> <p>For Gender Based Analysis (GBA+) considerations, targets are not required in the work plan, however, email addresses will be collected as part of annual performance reports and an anonymous survey will be sent out to all HQPs reported that year.</p>	<p>Example: 6</p>	<p>Examples: 2 Master students who are registered in Master programs; 3 PhD students who are registered in PhD programs. 1 post doctoral fellow</p>	N/A	N/A



Performance Measures – Table B

Performance Measures and Definitions	Targets	Brief Description of Each Target (What is the target?)	Priority Tagging	Technology Readiness Level
<p>Number of knowledge transfer events organized for the scientific community and/or number of presentations made at a conference to share results with the scientific community.</p> <p>Definition: Number of knowledge transfer events organized for the scientific community and/or number of presentations made at a conference to share results with the scientific community.</p> <p>This includes events completed in the reporting year that were organized under the project to share results of the activities with audiences who may use the knowledge in the future. Examples could include training events, scientific meetings, workshops, or webinars.</p> <p>This includes oral presentations at events that are not organized by the recipient, for example, conferences, symposiums or training events.</p> <p>Posters at conferences are not eligible for this category</p>	<p>Example: 2</p>	<p>Examples: 1 presentation at international Conference on Agriculture; 1 workshop is organized on crop production systems.</p>	<p>N/A</p>	<p>N/A</p>
<p>Number of knowledge transfer events organized to share results with potential adopters or to further commercialize the technology</p> <p>This includes events completed in the reporting year that were organized under the project to share results of the activities with audiences who may adopt the technology or further commercialize the technology in the</p>	<p>Example: 2</p>	<p>Examples: 1 field day is held with producers 1 demonstration is held with producers</p>	<p>N/A</p>	<p>N/A</p>



Performance Measures – Table B

Performance Measures and Definitions	Targets	Brief Description of Each Target (What is the target?)	Priority Tagging	Technology Readiness Level
<p>future. Examples could include, workshops, industry meetings, field days, demonstrations, tours or webinars.</p> <p>Number of participant targets are not required; however, recipients will be required to report on the number of participants during annual and final performance reporting.</p>				
<p>Number of new knowledge transfer products developed</p> <p>Definition: New knowledge could include, but is not limited to:</p> <ol style="list-style-type: none"> 1) Newly acquired knowledge that differs significantly from previously acquired knowledge; 2) Existing knowledge that is enhanced to meet different requirements; 3) Existing knowledge that is applied in different situations. <p>These are knowledge transfer materials created under the project that have been disseminated to transfer information to audiences who may use that knowledge in the future. Examples could include podcasts, brochures, factsheets, flyers, guides, articles in trade magazines, technical bulletins and social media items. Social media knowledge transfer materials are also included. However, each unique account/platform (such as Facebook, Twitter or a blogging website) is counted as one knowledge</p>	<p>Example: 2</p>	<p>Example: 1 brochure is developed on the benefits of no-till practice.</p> <p>1 blogging website is created to share results of the activity with producers</p>	<p>N/A</p>	<p>N/A</p>



Performance Measures – Table B				
Performance Measures and Definitions	Targets	Brief Description of Each Target (What is the target?)	Priority Tagging	Technology Readiness Level
<p>transfer product. Each individual post is not counted. In subsequent year(s) of the project, each account/platform can again be counted as one knowledge transfer product if there are updates/new posts.</p> <p>Only the number of products developed should be reported, not the number of copies that were printed and disseminated.</p>				
<p>Number of papers published in peer reviewed journals</p> <p>Definition: This includes scientific papers that are published in peer reviewed journals. Papers that are not yet published (ex. manuscripts in preparation, under review or accepted) should not be reported. Abstracts and conference proceedings are not eligible for this category.</p>	<p>Example: 2</p>	<p>Examples: 1 is published in the Journal of Soil and Tillage Research; 1 is published in the Journal of Plant Sciences.</p>	N/A	N/A
<p>Number of new technologies that are developed</p> <p>Definition: For each technology, provide a brief description and set a target that is expected to be achieved by the end of the project utilizing the Technology Readiness Level Scale.</p> <p>See Schedule C for TRL and descriptions and checklists</p> <p>A new technology could include, but is not limited to:</p>	<p>Example : 3</p>	<p>Examples: 1 new practice developed: a new practice in seed spacing which increases yield; 1 new product developed: a bio-herbicide that demonstrates efficacy in killing Canada thistle;</p>	<p>Economic Growth: Productivity</p> <p>Sector Resilience & Societal Challenges: Biological Alternatives</p> <p>Climate</p>	<p>TRL 4</p> <p>TRL 6</p> <p>TRL: 3</p>



Performance Measures – Table B

Performance Measures and Definitions	Targets	Brief Description of Each Target (What is the target?)	Priority Tagging	Technology Readiness Level
<p>1) A newly created technology that differs significantly from existing technologies;</p> <p>2) An existing technology that is modified to meet different requirements;</p> <p>3) An existing technology that is tested in different situations.</p> <p>Technologies include products, practices, processes or systems.</p> <p>New products are goods and services that differ significantly in their characteristics or intended uses from products previously produced and used. Examples could include equipment, software, novel foods or consumer goods.</p> <p>New processes are the set of operations performed by equipment in which variables are monitored or controlled to produce an output in labs or processing facilities.</p> <p>New systems are the set of detailed methods, procedures and routines created to carry out a specific activity, perform a duty, or solve a problem.</p> <p>New practices are new methods of production that can be applied directly by producers. BMPs should not be reported in this category as they have their own indicator.</p> <p>This category does not include new varieties. New varieties are only</p>		<p>1 new precision planter that reduces the use of nitrogen fertilizer</p>	<p>Change & Environment: Climate Change Mitigation</p>	



Performance Measures – Table B

Performance Measures and Definitions	Targets	Brief Description of Each Target (What is the target?)	Priority Tagging	Technology Readiness Level
<p>reported under ‘Number of new technologies that attain IP protection’ and/or Number of new technologies and BMPs that are utilized/adopted.</p> <p>Gene sequences, breeding lines and populations are not eligible under this category.</p>				
<p>Number of new BMPs that are developed</p> <p>Definition: A BMPs is any management practice that is developed that reduces or minimizes the farms negative impacts on the natural environment. These BMPs include new BMPs identified and exiting BMPs that are improved through knowledge or socio-economic-environmental activities.</p> <p>These BMPs are new agronomic techniques or methods that can be applied directly by producers</p>	<p>Example: 2</p>	<p>Examples: A new BMP developed to stop nitrogen leakage in nearby water sources</p>	<p>Climate Change & Environment: Water Quality</p>	<p>TRL 5</p>



Performance Measures – Table B

Performance Measures and Definitions	Targets	Brief Description of Each Target (What is the target?)	Priority Tagging	Technology Readiness Level
<p>Number of IP protection attained</p> <p>Definition: Examples for IP protection could include, but are not limited to: plant breeder rights, patents filed, registered trademarks and copyrights, and registered germplasm and released varieties (excluding breeding lines and gene sequences).</p> <p>Gene sequences, breeding lines and populations are not eligible under this category.</p>	<p>Example: 1</p>	<p>Example: 1 new practice demonstrated on-farm: A new practice that reduces production cost.</p>	<p>Economic Growth: Production Efficiencies</p>	<p>N/A</p>
<p>Number of new technologies and BMPs, that are utilized/adopted (Any technology reaching commercially available stage.)</p>	<p>Example: 1</p>	<p>Example: 1 energy efficient grain dryer has been developed and is commercially available in the market.</p>	<p>Climate Change & Environment: Climate Change Mitigation</p>	<p>N/A</p>



4. Schedule C: Technology Readiness Levels (TRL) Descriptions and Checklist¹

Definitions for the key terms underlined in the table can be found immediately below the table.

Technology Development Stage	TRL	Definition	Description	Checklist of activities to achieve this level
Fundamental Research	1	Basic principles observed and reported	<u>Scientific research</u> begins with properties of a potential technology observed in the physical world. These basic properties are being reported in the literature.	<input type="checkbox"/> Basic research activities have been conducted and basic principles have been defined <input type="checkbox"/> Principles and findings have been published in the literature (e.g., research articles, peer reviewed papers, white papers)
	2	Technology and/or Application concept formulated	<u>Applied research</u> begins with identification of practical applications of basic scientific principles. There is an emphasis on understanding the science better and corroborating the basic scientific observations made during TRL 1 work. Analysis of the feasibility of speculative applications is being conducted and reported in scientific studies.	<input type="checkbox"/> Applications of basic principles have been identified <input type="checkbox"/> Applications and supporting analysis have been published in the literature (e.g., analytical studies, small code units for software, papers comparing technologies)
Research and Development	3	Experimental proof of concept	Active <u>research and development</u> begins. The applications are being moved beyond the paper stage to experimental work. Feasibility of separate technology components are being validated through analytical and laboratory studies. There is not yet an attempt to integrate components into a complete system.	<input type="checkbox"/> <u>Proof of concept</u> and/or analytical and experimental critical function has been developed <input type="checkbox"/> Separate components have been validated in a <u>laboratory environment</u>
	4	Validation of component(s) in a laboratory	Basic technological components are integrated “ad-hoc” to establish that they will work	<input type="checkbox"/> “Ad-hoc” integrated components, sub-systems and/or processes have been

¹ Utilized from Clean Growth Hub’s Technology Readiness Level (TRL) Assessment Tool, [CGH TRL Assessment Tool.pdf](#) ([gcpedia.gc.ca](#)).



Technology Development Stage	TRL	Definition	Description	Checklist of activities to achieve this level
		environment	together in a <u>laboratory environment</u> . The “ad-hoc” system would likely be a mix of on hand equipment and a few special purpose components that may require special handling, calibration, or alignment in order to function.	<p>validated in a <u>laboratory environment</u></p> <input type="checkbox"/> How “ad-hoc” integration and test results differ from the expected system goals is understood
	5	Validation of semi-integrated component(s) in a simulated environment	The integrated basic technological components are performing for the intended applications in a <u>simulated environment</u> . Configurations are being developed but can undergo fundamental changes. The technology and environment at TRL 5 is more similar to the final application than TRL 4.	<input type="checkbox"/> Semi-integrated component(s)/ subsystems or processes have been validated in a <u>simulated environment</u> <input type="checkbox"/> How the <u>simulated environment</u> differs from the expected <u>operational environment</u> and how the test results compare with expectations is understood
Pilot and Demonstration	6	System and/or process prototype demonstrated in a simulated environment	<p>A <u>model</u> or <u>prototype</u>, that represents a near desired configuration, is being developed at a pilot scale, generally smaller than full scale.</p> <p>Testing of the <u>model</u> or <u>prototype</u> is being conducted in a <u>simulated environment</u>.</p>	<input type="checkbox"/> Pilot scale <u>model</u> or <u>prototype</u> developed <input type="checkbox"/> Pilot scale <u>model</u> or <u>prototype</u> system is near the desired configuration in performance, and volume but generally smaller than full scale <input type="checkbox"/> Pilot scale <u>prototype</u> or <u>model</u> system has been demonstrated in a <u>simulated environment</u> <input type="checkbox"/> How the <u>simulated environment</u> differs from the <u>operational environment</u> , and how results differed from expectations is understood
	7	Prototype system ready	A full-scale <u>prototype</u> is being demonstrated in an <u>operational</u>	<input type="checkbox"/> Full scale <u>prototype</u> with ready form,



Technology Development Stage	TRL	Definition	Description	Checklist of activities to achieve this level
		(form, fit and function) demonstrated in an appropriate operational environment	<u>environment</u> but under limited conditions (i.e., field tests). At this stage, the final design is very close to completion.	fit and function developed <input type="checkbox"/> Full scale <u>prototype</u> demonstrated in an <u>operational environment</u> but under limited conditions
	8	Actual technology completed and qualified through tests and demonstrations	Technology is being proven to work in its final form and under expected conditions. This stage commonly represents the end of technology development. At this stage, operations are well understood, operational procedures are being developed, and final adjustments are being made.	<input type="checkbox"/> Final configuration of the technology developed <input type="checkbox"/> Final configuration successfully tested in an <u>operational environment</u> <input type="checkbox"/> Technology's ability to meet its operational requirements has been assessed and problems documented; plans, options, or actions to resolve problems have been determined
Early Adoption	9	Actual technology proven through successful deployment in an operational environment	Actual application of the technology in its final form is being conducted under a full range of operational conditions. Sometimes referred to as "system operations", this stage is where technology is further refined and adopted.	<input type="checkbox"/> The technology has been successfully deployed and proven under a full range of operational conditions <input type="checkbox"/> Operational, test and evaluation reports have been completed
Commercially Available		Technology development is complete	Technology is openly available in the marketplace and/or has been sold directly to a buyer in the public or private sector, in its current state or service offering for non-testing or development purposes. The technology is commercial and competitive but may need further integration efforts for wide spread adoption.	<input type="checkbox"/> The technology is openly available in the marketplace and/or has been sold in its current state of service offering for non-testing or development purposes.



5. Key terms

Scientific research: research aimed at expanding the base of theoretical scientific knowledge and predictions that have universal applicability

Applied research: the application of scientific knowledge to solve specific practical problems or answer certain questions

Research and development: systemic work designed to produce new products, techniques or processes or improve existing products, techniques or processes

Proof of concept: analytical and experimental demonstration of hardware/software concepts.

Model: a reduced scale, functional form of a system, near or at operational specification

Prototype: the first early representation of the system which offers the expected functionality and performance expected of the final implementation

Laboratory environment: a fully controlled test environment where a limited number of functions and variables are tested. Tests in a laboratory environment are solely for the purpose of demonstrating the underlying principles of technical performance (functions), without respect to the impact of environment

Simulated environment: a relevant working environment with controlled realistic conditions, generally outside of the lab. If the technology will be used in various environments (e.g., the Arctic and Southern Canada), the technology must be developed and tested in a simulated environment for all conditions.

Operational environment: “real-world” environment with conditions associated with typical use of the product and or process. If the technology will be used in various environments (e.g., the Arctic and Southern Canada), the technology must be developed and tested in each operational environment



Annex D: Impact Assessment Guidelines

Section 1: Impact assessment scope

An impact assessment relating to the research funded by the AgriScience program shall be carried out to support accountable reporting and to assess the impacts and outcomes of the funding received by Clusters under the previous frameworks.

1.1 The assessment will encompass an evaluation of the following components:

- 1.1.1 The impacts and outcomes of the Cluster as a whole on the sector and on the themes identified in the work plan of its agreements under the Canadian Agricultural Partnership (CAP). This component should include a high-level summary with a focus on the qualitative results of the research conducted by the Cluster as a whole and address the sector's ability to coordinate, fund and build new partnerships, collaborations and research capacity since the creation of the program;
- 1.1.2 An in-depth quantitative assessment of a minimum of three activities identified by the Cluster as "success stories" that have been funded under the Growing Forward, Growing Forward 2 and/or CAP frameworks. These activities will have led to innovation resulting from work supported by the Cluster and that has been commercialized or broadly adopted by the sector, have a major impact, and for which measurable and quantitative benefits in terms of return on investment can be obtained. It is expected that part of this work includes cost-benefit analyses and identification of economic, environmental or social impacts. It is recommended that recipients use external consultants for the purpose of the quantitative assessments and cost-benefit analyses.

Section 2: Impact assessment requirements and timelines

2.1 The Impact assessment is a mandatory activity in a Cluster proposal for returning Clusters and will be included in the work plan as Activity 3: Impact assessment.

2.2 The activity is eligible for a cost-share ratio up to 50:50 with a maximum AAFC contribution of \$100,000.

2.3 A work plan detailing the assessment methodology of the two components and the choice of activities or success stories to be assessed will be provided to AAFC for review and approval as part of the deliverables of Activity 3 in the first program year (2023/24).

2.4 A preliminary report of the impact assessment of the Cluster as a whole and of the success stories will be provided to AAFC in the third program year (2025/26).

2.5 A final impact assessment of the Cluster as a whole, as well as individual success stories will be provided to AAFC in the fourth program year (2027/28). A holdback of 10% on AAFC funding in the final program year will be applied until all reports including the impact assessment are received.

2.6 Recognizing that each Cluster is different, no standard format for the impact assessment report will be provided by AAFC. Clusters should consider a format that takes into account the particularities of their sector and the structure of their Cluster.



Annex E: AgriScience Clusters - Peer Reviews & SAB

1. Peer Review Guidelines

Obtain independent peer reviews for all research activities included in the Cluster proposal.

All individual research activities included in a Cluster proposal submitted to AAFC must be assessed by independent peer reviewers. This process is led by the applicant and must be consistent with the following guidelines:

A minimum of two (2) peer reviews must be obtained for each research activity within the proposed Cluster. A documented critical review must be performed by peers, defined as scientists having technical expertise in the subject matter, to be at least equivalent to that needed for the original work. These peer reviews can be ~~completed~~ by scientists from industry, academia and/or government, in Canada or abroad. **Peer reviews cannot be completed by any current AAFC employees**, including its scientists.

A third review will only be required in cases where two reviewers' scores are discrepant. Discrepancy is defined as a difference greater than 10% above or below, on a scale of 0 to 5.

Example 1: Score 1 = 4.3/5 (equivalent to 86%)
Score 2 = 3.8/5 (equivalent to 76%)

Difference is 0.5 (10%), therefore a third reviewer is not required.

Example 2: Score 1 = 4.8/5 (equivalent to 96%)
Score 2 = 3.9/5 (equivalent to 78%)

Difference is 0.9 (18%), therefore a third reviewer is required.

Exception: when both reviews are below the passing mark (i.e., 3.5/5 or 70%) there is no need for a third review, even if there is more than a 0.5 discrepancy.

A regular member of the Scientific Advisory Body can complete the third peer review if an independent reviewer with the requisite expertise is not available.

Reviewers must be independent. This means that the peer reviewer:

- Was not involved as a participant, supervisor, technical reviewer, or advisor in the work being reviewed; and
- Has not collaborated with the principal investigator(s) within the last three years.
- Peer reviewers must sign a conflict of interest agreement (Schedule A).

Scope of peer review: Reviewers are expected to assess the scientific and technical quality of the proposed activities, budget and research team. Peer review forms should contain, at a minimum, the following sections to be completed:



- Benefits and impacts of the research activity to the sector in relation to the three priority areas: 1) climate change and environment; 2) economic growth; and, 3) sector resilience
- Alignment of the research activity to a priority area and identification of indicators/performance measurements
- Assessment of the research objectives, science methodology, experimental design, timelines and deliverables
- Assessment of the novelty, duplication, or continuity of the research
- Technical capacity of the science team
- Risk and probability of achieving the activity objectives
- Budget and timelines
- Collaboration and partnerships
- KTT strategies
- Summary comments on the strengths and weaknesses, as well as recommendations and advice regarding the proposal

Peer reviewers are not expected to assess non-research related activities or program eligibility criteria.

A sample peer review form has been included in Schedule B. Applicants may use the template provided, customize the form, or create their own peer review template with sector specific information and/or requirements.

Conflict of Interest and Confidentiality: Peer reviewers must sign an agreement to ensure effective conflict of interest management and, during the review process, the confidentiality of personal information and commercial information submitted to, and shared amongst, the applicant/recipient organization, peer reviewers and AAFC. Applicants are encouraged to refer to the [Conflict of Interest and Confidentiality Policy of the Federal Research Funding Organizations](#) and the Federation Research Funding Organizations' [Conflict of Interest and Confidentiality Agreement](#) or to use the optional template provided by AAFC (See Schedule A).

A copy of the signed peer reviews will be required at the time of Cluster proposal submission.

2. SAB Guidelines

It is the applicant's responsibility to form a SAB to provide independent advice on the scientific and technical merits of proposed research over the duration of the Cluster.

The composition of the SAB must meet the following guidelines:

- **At least three (3) regular members**, representing any of the following:
 - Industry stakeholders (other than the applicant)
 - Universities and/or other research institutions
 - Government (other than AAFC)
- **At least two (2) ex-officio, non-voting members** representing:
 - The applicant
 - AAFC, excluding AAFC employees involved in Vote 1 activities
 - Members will normally be research scientists or managers with expertise relevant to the Cluster project subject matter and must not be a principal investigator and/or



- researcher for any of the Cluster activities.
- The SAB will name a Chair who will normally be a research scientist with demonstrated leadership skills and extensive knowledge of the Cluster's sector.
 - It is recommended that SAB members be appointed for mandates of one (1) year or longer, whenever this is feasible.
 - Service as a SAB member must be voluntary. Members cannot be compensated (no honouraria or other financial compensation) for their SAB duties and may only be reimbursed at the Government of Canada rates for expenses incurred to attend meetings.
 - Members are to meet at least once annually at the call of the SAB Chair.
 - The SAB's mandate is to:
 - Validate the integrity of the peer review process to ensure a fair, transparent and thorough evaluation of individual research activities by independent peer reviewers;
 - Provide the applicant organization with expert advice on the Cluster's science programming; and
 - Review annual and final performance reports, which must be signed off by the SAB Chair.

The SAB will fulfill its mandate by:

- Ensuring that research, development and KTT activities have been assessed for scientific/technical merit by independent peer reviewers with appropriate expertise in the field of the proposed activities;
- Expressing opinions on the feasibility of the proposed work plan, the soundness of the proposed budget, and the appropriateness of the assembled team in charge of carrying out the Cluster's research activities;
- Providing strategic advice with respect to the Cluster's overall five-year science programming, in general, and the anticipated emerging themes and priorities which may lead to new activities and/or changes to existing ones; and
- Assessing the scientific/technical merit of new activities and/or changes to existing ones for the duration of the Cluster.
 - It is not expected that the SAB will assess non-research related activities, such as activities related to administration.

The applicant must submit a "Science Advisory Body (SAB) – Summary of Peer Review" form, signed by the SAB Chair, attesting that an independent peer review has been conducted, and documenting changes made to the Cluster research proposal (or individual research projects that are part of the proposal) as a result of peer reviews and SAB deliberations.

Information Management, Retention of Documents and Access

The applicant must include the following peer review and assessment documents in the Cluster proposal submitted to AAFC:

- List of independent peer reviewers including, at a minimum, each reviewer's name, title, organization and area(s) of expertise;
- All completed peer review forms;
- List of SAB members including, at a minimum, each member's name, title,



- organization and area(s) of expertise;
- SAB meeting agenda and minutes; and
- SAB – Summary of Peer Review form signed by the SABChair.

The following peer review and assessment documents must be retained by the applicant, but are not required to be included in the Cluster proposal submitted to AAFC:

- Signed conflict of interest and confidentiality agreements for all reviewers; and
- Terms of reference and/or administrative policies of the SAB.

AAFC may ask to review these documents at a later date. Documents can be retained in paper and/or electronic format. Scanned images of paper documents that are maintained in electronic format are acceptable.

CA with AAFC contain Information Management, Retention and Access provisions which require that recipients retain records for seven (7) years after the date of expiration or early termination of the funding agreement with AAFC, whichever comes later.

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3. SCHEDULE A

[INSERT CLUSTER APPLICANT LETTERHEAD AND ADDRESS]

CONFLICT OF INTEREST, CONFIDENTIALITY AND NON-DISCLOSURE DECLARATION - EXTERNAL PEER REVIEWERS -

External peer reviewers must meet very high standards of ethical behaviour in their task. External peer reviewers are invited as individuals; they are not the advocates or representatives of their disciplines nor are they the delegates of any organization. Their duty is to make the best possible objective assessment of research proposals.

Regarding peer reviews of research proposals from the *[Insert Cluster Applicant Name]* for the next science cluster:

I, the undersigned, _____
Name]

[Insert Your Printed

- Recognize that I may be informed, through my involvement in the assessment and/or expert evaluation of the submitted research activities, of confidential information consisting of scientific, technical, industrial or commercial information related to the projects (except that which would be part of public domain), which will be communicated to me in an oral or written way or on any other media given to me for the task.

Consequently, I am committing to:

CONFIDENTIALITY:

- Treat the documentation provided as strictly confidential;
- Use the confidential information provided only for the purpose for which it was originally intended (i.e., assess *[Insert Cluster Applicant Name]* research proposals to evaluate the scientific merit and to confirm the resources requested to undertake the research. It must not be used for any other purpose or discussed with or disclosed to others);
- Take all necessary measures to prevent the disclosure of the confidential information to a third-party (e.g., neither reproduce all and/or part of the confidential information nor disclose it in any form therefore, store it in a secure manner to prevent unauthorized access, and when no longer required, destroy it)



CONFLICT OF INTEREST:

- Point out to the **[Insert Cluster Applicant Name]** SAB any situation of conflict of interest that would affect me as a result of my involvement in the selection process relating to the projects submitted;
- Evaluate projects with equity and objectivity, according to the criteria of the evaluation form therefore carrying on my mission from a completely impartial and independent standpoint;
- Not belong or have belonged, in the last three years, to the same research unit as the scientist(s);
- Not have been a research supervisor or graduate student of the applicant(s) within the past three years;
- Not have collaborated with the applicant(s) within the past three years or have plans to collaborate in the immediate future;
- Not be an employee of a non-academic organization with which the applicant has had collaboration within the past three years;
- Not be a principal investigator and/or researcher for any of the Cluster activities;
- Not be a current AAFC employee/scientist;
- Not be in any other potential conflict of interest (e.g. personal, financial);
- Not take any advantage from my position for myself, my relatives, my colleagues, my laboratory or my organization;
- Not get in contact with the applicant(s) for my work achievement during the evaluation;
- Draw the attention of the **[Insert Cluster Applicant Name]** SAB regarding any pressure attempt coming from the applicant.

NOTE: The notion of conflict of interest is defined as follows: It refers to the situation in which somebody has to evaluate and/or to take part in a decision which could directly/indirectly give him an advantage in the framework of his scientific activities or as a scientific manager. It covers in particular the following cases:

- The evaluation/decision about a project in which he is involved himself, or his close colleagues, or a team of his research unit-especially when he is at the head of this research unit-or his organization,
- The evaluation/decision about a project directly in competition with a project in which he is involved himself, or his close colleagues, or a team from his research unit-especially when he is at the head of this research unit- or his organization.

*I have read the above instructions on the need for confidentiality with respect to **[Insert Cluster Applicant Name]** information provided and the requirement for secure management of all information entrusted to me by the **[Insert Cluster Applicant Name]**. I understand that breaches of confidentiality are subject to investigation, to the imposition of sanctions by the **[Insert Cluster Applicant Name]**, and that the person to whom the information relates may seek civil remedy against me for breach of confidentiality. I agree to take personal responsibility for complying with these requirements.*

Signature _____

Date _____

Please send the signed form by email to **[Insert Cluster Applicant Contact Email]** or by fax to **[Insert Cluster Applicant Fax #]**.



4. SCHEDULE B

[INSERT CLUSTER APPLICANT LETTERHEAD AND ADDRESS]

SAMPLE PEER REVIEW FORM

Peer reviewer information	
Name: Title: Institution:	Phone: Email:
Research activity information	Overall rating
Research activity title: Principal investigator:	/5
1. Benefits and impacts to the sector	<i>Describe if and how the research will advance and/or impact the sector in relation to the three priorities areas: climate change and environment, economic growth and development, and sector resilience and societal challenges (see Appendix 1).</i>
	Strengths:
	Weaknesses:
2. Reporting on Results	<i>1. Based on your assessment, please select which of the three priority areas is the primary purpose of the research activity: 1) climate change and environment 2) economic growth and development and 3) sector resilience and societal challenges.</i>
	<i>2. Based on the primary purpose of the research activity, are there appropriate strategies in place to measure the environmental, economic or sector resilience impacts? Have performance measurements/ indicators been identified?</i>
	Strengths:
	Weaknesses:
3. Science methodology	<i>Provide comments on the clarity, quality, soundness and novelty of the research objectives, methodology, experimental design, timelines and deliverables. Indicate if the research is innovative, and if the research is a continuation of previously supported work, describe how it advances the science relative to the previous work.</i>
	Strengths:
	Weaknesses:
4. Technical capacity	<i>Does the proposed science team possess or have access to the necessary qualifications, technical expertise and experience to complete the</i>



	<i>research activity?</i>
	Strengths:
	Weaknesses:
5. Risk	<i>What is the likelihood of achieving the objectives and expected impacts of the research activity? Does the activity identify potential challenges and appropriate mitigation strategies?</i>
	Strengths:
	Weaknesses:
6. Budget and timelines	<i>Are the budget and timelines realistic and well justified considering the deliverables?</i>
	Strengths:
	Weaknesses:
7. Collaboration and partnerships	<i>Is there a sufficient level of financial and non-financial engagement and commitment from industry partners and relevant stakeholders across the innovation ecosystem?</i>
	Strengths:
	Weaknesses:
8. KTT	<i>Have the end-users of the research been appropriately identified and will the platform(s) for disseminating results reach the intended end-users? How will the knowledge and results be implemented in the sector and adopted across the value chain?</i>
	Strengths:
	Weaknesses:
9. Recommendation	<i>Provide a rationale for your final score and recommendation, and any suggested improvements if applicable. Are there any additional issues that you would like to raise?</i>
	Strengths:
	Weaknesses:



Rating Scale

Descriptor	Range	Definition
Outstanding	4.5 – 4.9	<p>The application excels in most or all relevant aspects. Any short-comings are minimal.</p> <p>If an application is innovative, fills an important critical gap in knowledge, has very few flaws, and the investigators are well poised to perform the research and have a very productive track record.</p>
Excellent	4.0 – 4.4	<p>The application excels in many relevant aspects, and reasonably addresses all others. Certain improvements are possible.</p> <p>If an application is very interesting, makes important advances, the team is excellent, but there are some minor limitations that need to be addressed or a clear description of impact is missing.</p>
Good	3.5 – 3.9	<p>The application excels in some relevant aspects, and reasonably addresses all others. Some improvements are necessary.</p> <p>If an application is compelling, but has limited scope or impact, and/or raised some concerns about the feasibility and/or team; or in other words, the plan has strengths, but needs work.</p>
Fair	3.0 – 3.4	<p>The application broadly addresses relevant aspects. Major revisions are required.</p> <p>If an application has merits but also has many limitations.</p>
Poor	0.0 – 2.9	<p>The application fails to provide convincing information and/or has serious inherent flaws or gaps.</p> <p>If an application has significant flaws and is not ready to be funded.</p>



5. Appendix 1: Priority Areas Guidelines

5.1 Climate Change & Environment

Description & Scope

Notional Allocation for Clusters: 30-40%* of activities will be required to have an environment and climate change focus, with a 15-20%* carve out for activities that focus on GHG reduction or carbon sequestration.

Investments made under the Climate Change and Environmental priority area would focus on:

- a) Research aimed at developing solutions to reduce GHG emissions reductions and sequester carbon for agriculture to contribute to 2030 and 2050 climate targets;
- b) Research to support sector resilience and adaptation to climate change; and
- c) Research on other environmental and sustainability issues facing the sector with a focus on federal priorities of biodiversity, soil health, water quality, air quality, and plastics.

AgriScience would encourage investments in both projects and clusters that take a future, long-term perspective including:

- Balancing investments to the improvement of existing systems and to explore more transformational solutions.
- Understanding the interconnection and potential to realize multiple outcomes from a suite of BMPs implemented in holistic systems (e.g. regenerative agricultural practices, circular approaches, precise small-zone level landscape management)

Examples of Research Activities

- Science research required for the development of carbon offset market protocols, including for methane reducing feed amendments, fertilizer practices (including novel fertilizer products), cover crops, rotational grazing etc.
- Research required for the development of enabling technologies that would support measurement, reporting, and validation of GHG emission reductions and carbon sequestration (e.g. sat imagery, soil sampling technologies, soil moisture probes, irrigation monitoring devices etc.).
- Socio-economic research on BMPs adoption and on transformative land use and management change for the sector, including from a commodity-specific perspective.
- Research into novel feed additives or feed processing technologies and techniques to reduce methane emissions in ruminant (dairy, beef and sheep) operations.
- Agronomic research into high intensity (small zone) spatial land and crop management to reduce application of inputs based on soil, water, topographic and crop characteristics under various climate regimes.
- Research and Development into transformative solutions and technologies aimed at reducing the sectors' carbon footprint, such as nitrogen fixing crops and related technologies including enhanced efficiency fertilizers, low carbon/carbon neutral fertilizers and biofertilizers; water recycling/nutrient management technologies; biodigesters; and alternative production systems (cellular agriculture, insect-based-proteins).



Potential Performance Measurements/Indicators

- Estimation of the potential annual reduction in Mt CO₂eq (per acre or per technology)
- Estimation of the potential annual reduction in Mt methane
- Estimation of the potential annual reduction in synthetic fertilizers (per acre)
- Estimation of the potential annual sequestration of Mt CO₂eq (per acre)
- Estimation of the potential annual percent increase in food or agricultural waste being used
- Estimation of the potential annual reduction in energy use (based on use of 1 technology)
- Estimation of the potential increase in soil health
- Estimation of the potential increase in water quality
- Number of technologies developed to support measurement, reporting, and validation of GHG emission reductions and carbon sequestration
- Other project specific indicators submitted by the applicant

All estimates should be based on use of 1 technology for 1 year or BMPs for 1 year (per acre)

5.2 Economic Growth & Development

Description & Scope

A funding principle for AgriScience will include Strategic Value to Canada, which will require that Clusters demonstrate a long-term vision for sustainable development and growth of the sector and shows how the proposed research contributes to that vision. This would imply that proposals should support improvements across all three priority areas.

Investments in this priority are expected to include:

- Research to increase value-added domestic and export sales of agriculture, food and agri-based industrial products;
- Research to develop emerging technologies that address labour challenges, increase productivity, and improve input use efficiency (e.g. fertilizer, pesticides, energy); and
- Research to support alternative productive systems (e.g. cellular agriculture, controlled environment agriculture).

Prioritization and selection of proposals will involve many considerations, including:

- Capacity of sector/commodity (treatment of minor or emerging sectors vs major established commodities);
- Participation of value chain partners;
- Potential impact relative to cost; and
- Direct contribution to the other two pillars of sustainability and resilience.

Examples of Research Activities

- Research into development of plant-based proteins from various crops to identify and develop new sustainable market opportunities.



- Research into development of new technologies to support precision agriculture, automation, processing, and packaging, including precision feeding and feed mixes that will increase productivity.
- Research to support the development of Artificial intelligence (AI) solutions to support enhanced productivity and sustainability and reduction of external inputs of the sector.
- Research into development of energy generation or additional value-added opportunities through use/repurpose of biomass and by-products.
- Research aimed at improving production efficiency (e.g. plant breeding, animal feed efficiency, sustainably combatting crop pests and disease, use of AI and Big Data), developing new or improved product attributes or production systems or trait packaging.
- Plant breeding and genetic development that optimizes output and reduces yield variability under limited input growth parameters- focusing on trait development.

Potential Performance Measurements/Indicators

- Estimation of the percent increase in productivity (e.g. estimation of the percent increase in harvested crop yields per acre)
- Estimation of the percent reduction in labour costs/requirements per 1 year use of the technology
- Estimation of the annual economic savings resulting from the decrease in use of energy or inputs (fertilizer, water, herbicide, animal feed, etc.) based on annual use of one technology
- Estimation of the economic value of the technology (projected value of IP)
- Number of jobs created as a result of the project
- Number of value-added agricultural products developed
- Other project specific indicators submitted by the applicant

5.3 Sector Resilience & Societal Challenges

Description & Scope

Investments in this priority will include undertaking research aimed at improving sector resilience in response to market, societal and other pressures.

This will include areas such as:

- Antimicrobial resistance;
- Animal health and welfare;
- Plant health;
- Food security;
- Biological alternatives to chemical inputs (pesticides and fertilizers); and
- AI and Big Data in Agriculture.

Examples of Research Activities

- Biovigilance research to understand and combat effects of pest movements, new crops, and farming practices on plant health.
- Research into cyber security risks and mitigation tactics to protect data with increasing use of AI and Big Data on-farm.
- Research into the development of tools to diagnose and address antimicrobial resistance.
- Research into development of technologies and systems to improve antimicrobial surveillance and data



collection.

- Research to analyze the uptake of animal health and welfare technologies (e.g., genomic technology, animal electronic identification, activity monitors etc.) by farmers.

Potential Performance Measurements/Indicators

- Number of partnerships developed with underrepresented groups
- Estimation of the percent increase in resistance to diseases
- Estimation of the percent increase in resistance to drought
- Estimation of the potential annual reduction in pesticide use per greenhouse or acre
- Estimation of the potential annual reduction in herbicide use per greenhouse or acre
- Estimation of the annual reduction in use of antimicrobials per 100 animals
- Estimation of the potential annual decrease in mortality rates
- Estimation of the potential annual decrease in injuries
- Other project specific indicators submitted by the applicant

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