



DAIRY PRODUCTION RESEARCH FUNDING PROGRAM GUIDELINES

October 2023

I. INTRODUCTION

[Dairy Farmers of Canada](#) (DFC) is a non-profit organization, funded by dairy farmers across Canada and representing Canada's 10,000 dairy farms. Our organization plays a leadership role on behalf of the industry in several important areas, including funding and support of research in dairy production and in human nutrition and health. DFC has a long-standing commitment (over 30 years) of investing in dairy research to drive innovation and ensure a sustainable future for the sector.

DFC's investments in science are guided by the [2022-2027 National Dairy Research Strategy](#). The strategy was developed through extensive consultations involving a broad range of stakeholders from the scientific community and industry and resulted in the identification of targeted outcomes and research priorities under three areas: dairy farm sustainability; animal health, care and welfare; and dairy in human nutrition and health.

DFC's Dairy Production Research Funding Program (the "**Program**") aims to support scientific research in the area of dairy production and generate new knowledge and innovations to the benefits of the dairy sector.

DFC has adopted a peer-review system and a funding application process similar to those of major granting agencies (e.g., NSERC).

II. RESEARCH PRIORITIES

The objective of the Program is to foster innovation, increase farm efficiency and sustainability, and enhance animal health, care and welfare practices. Research projects submitted under the Program should aim to address issues that have a national perspective.

Please refer to the [Appendix](#) for full details on research priorities.

III. ELIGIBILITY

Researchers from Canadian universities and colleges and/or from federal and provincial research centres are eligible to apply to the Program. Non-Canadian researchers could be considered as co-investigators or collaborators.

The Principal Investigator (the "**Principal Investigator**") is responsible for the complete direction of the approved Project (the "**Project**") and other activities associated with its efficient execution. The role of the co-investigator(s) in the Project must be clearly defined. Students and trainees are normally not eligible to act as co-investigators.

A researcher cannot have two projects simultaneously under this Program for which he/she is the Principal Investigator. However, the same researcher can be co-investigator of no more than one additional project.

Networking is encouraged. Projects should, when possible, involve complementary teams of researchers from across Canada.

Commercial product research and development is not eligible.

IV. FUNDING PROGRAM ADMINISTRATION

Under this Call for Proposals, the submission of a Letter of Intent (the “**Letter of Intent**”) is the first step in the funding application process. Please consult the [website](#) for all information about the Program.

The Letter of Intent will first be reviewed by the Production Expert Scientific Advisory Committee, composed of independent researchers, technical experts and dairy farmers. Based on their recommendations, DFC’s [Canadian Dairy Research Council](#) will make the final decision regarding the selection of Letters of Intent. Principal Investigators whose Letters of Intent are considered to have appropriate research approach to address the research priorities targeted in this Call for Proposals and generate impactful knowledge and innovation for the dairy sector will be invited to submit a Full Proposal (the “**Proposal**”).

The Proposals will be evaluated based on their overall presentation, clarity and soundness, scientific merit and technical feasibility, team expertise, training opportunities, knowledge translation and transfer opportunities, and realistic budget. The Proposals will first be subjected to an independent external peer review process. Based on the external peer reviews, the Production Expert Scientific Advisory Committee will evaluate the Proposals and make recommendations. DFC’s Canadian Dairy Research Council will make the final decisions regarding the Proposals. Decisions will be communicated to the Principal Investigators in July. Funding approval is conditional to obtaining matching funds. Expected start date of the Projects is early the following calendar year.

Approval of the Letter of Intent and/or the Proposal does not guarantee Project funding per se. The approval is considered final upon signature of the Memorandum of Agreement (the “**Memorandum of Agreement**”) (section VII).

In certain instances, projects of interest to DFC, that fall outside the established timelines and research priorities, may be considered.

V. COMPONENTS

The Dairy Production Research Funding Program has 2 components:

Research PROJECT Component

This component supports single, focused research projects that addresses the characteristics below.

- Duration: 1 to 3 years
- Maximum amount that can be requested from DFC: up to \$150,000 and up to 50% of the total Project budget.
- Research priorities: refer to the appendix
- Matching funds must cover at least 50% of the total Project budget and should come from sources other than dairy farmer organizations (e.g., government, academia, other ag or food industry partners)

Research PROGRAM Component

This component supports national research programs, i.e., set of projects forming a connected package, involving several research and funding partners, and addressing the characteristics below.

- Duration: 3 to 5 years
- Maximum amount that can be requested from DFC: up to \$150,000 and up to 33.3% of the total Project budget.

- Research priorities: refer to the appendix
- Matching funds must cover at least 66.7% of the total Project budget and should come from sources other than dairy farmer organizations (e.g., government, academia, other ag or food industry partners)

VI. FUNDING APPLICATION PROCESS

a) Letter of Intent

The Letter of Intent must be submitted on the Letter of Intent Form to dairyresearch@dfc-plc.ca by **January 8, 2024**. The Letter of Intent Form for each component can be found on the [website](#).

Please note: The same Principal Investigator can submit more than one Letter of Intent. However, regardless of how many Letters of Intent are approved, only one Proposal per Principal Investigator can be submitted for final review. Switching the names of the Principal Investigator and of the co-investigators is not appropriate and may exclude the Letter of Intent or the Proposal from further consideration.

The PDF form provided for the Letter of Intent is self-explanatory and specifically designed to eliminate the need for additional supporting material to transmit relevant information (i.e., appendices or a cover letter). **Additional pages will be removed from the Letter of Intent form.** Please comply with the space and format limitations of the Letter of Intent form. Do not use photo-reduced type. The **font is Arial and the size is 11 points.**

Letters of Intent submitted in French will be translated for English reviewers; the Principal Investigator and/or their team may not review the translation.

In the interests of improved coordination and funding efficiency, DFC reserves the right to share Letters of Intent with other research funders.

b) Full Proposal

Upon approval of a Letter of Intent, DFC will provide a Full Proposal Form to be completed and submitted to dairyresearch@dfc-plc.ca by **April 15, 2024**.

Major change(s) from the Letter of Intent will not be permitted unless they have been suggested by the Production Expert Scientific Advisory Committee. Making such changes could lead to the Proposal not being reviewed.

Guidelines for completing Proposals:

- Please comply with the space and format limitations of the Full Proposal Form. Do not use photo-reduced type. The **font is Arial and the size is 11 points.**
- **The body of the Full Proposal Form is self-contained and must not include additional pages and/or attachments other than tables and figures. Up to three manuscripts can be appended to the Proposal and must be relevant to the current proposed Project.**
- **CV for the Principal Investigator and co-investigators**
A complete curriculum vitae for the Principal Investigator and for each co-investigator, in the Canadian Common CV (CCV) format (NSERC) or on the DFC CV Form (available upon request), must be appended to the Proposal.

- **Title of the Project**

A good title is very important. It should be concise and provide a clear indication of the subject/topic of the proposed Project and reflect its main purpose. There should be no abbreviations or acronyms in the title. The title may be modified upon mutual agreement between DFC and the Principal Investigator.

- **Project details**

In the Full Proposal Form, detailed information is required: background information; objectives and hypothesis, experimental approach; milestones; team expertise and training of highly qualified personnel; potential benefits and economic impact for the dairy sector; and knowledge translation and transfer activities. **Please note that power and sample size calculations must be provided** in the Proposal.

In the interests of improved coordination and funding efficiency, DFC reserves the right to share Proposals with other research funders.

c) Budget information

The total amount requested from DFC can be up to \$150,000 and represent up to 50% of the total Project budget for the Research Project Component, and up to 33.3% of the total Project budget for the Research Program Component.

Available envelope for this Call for Proposals is approximately \$400,000.

Detailed information about the financial requirements for the Project is to be provided as outlined below.

- **Personnel**

There are four categories of individuals who may be paid from the Program:

1. Research personnel whose skills are required to conduct the Project;
2. Technicians who are formally classified as such by their research institutions;
3. Graduate students (MSc and PhD); and
4. Postdoctoral fellows.

Budget justification for personnel is to be included. DFC reserves the right to request further information regarding fringe benefits. Salaries for Principal Investigators and co-investigators are not eligible under the Program.

- **Major equipment**

DFC does not provide equipment funding. However, in special cases where equipment is shown to be essential to the Project, DFC may, at its entire discretion, contribute to the purchase of major equipment upon request in writing from the research institution and/or Principal Investigator. Major equipment is considered a single item for which the price exceeds \$10,000.

- **Material and supplies**

Expenditures include expendable materials, such as experimental animals and feed, chemicals, glassware, and supplies for existing equipment and routine maintenance of existing equipment. Expenditures in excess of \$500 per item are to be itemized.

- **Publications and publication costs**

Publication of research results in a reputable, peer-reviewed scientific journal is encouraged. The choice of the journal for publishing results rests with the Principal Investigator. Primary consideration should be given to reputable Canadian or international

journals with extensive readership in Canada. Publication costs **should** be included in the budget.

Note: Publications resulting from DFC's support should be acknowledged using the following statement: *This project was supported by Dairy Farmers of Canada. As per the research agreement, Dairy Farmers of Canada had no role in the design and conduct of the study, data collection, and analysis or interpretation of the results as well as the decision to publish the findings.*

- **Travel**

Travel to scientific meetings within Canada or meetings outside Canada, when pertinent, to present research results from the Project funded is encouraged. Travel costs may be either \$2,000 per annum or 10% of the amount requested from this Program, whichever is less.

- **Other expenses**

Computer costs related to data analyses and other routine expenses incurred as part of the Project funded are eligible. Expenditures in excess of \$500 per item are to be itemized.

- **Overhead charges or indirect costs**

DFC will pay no overhead/indirect costs for DFC funded projects to the research institution, the Principal Investigator and/or the co-investigator(s), as the case may be.

- **Unauthorized expenses**

Consultant fees are not eligible unless prior written approval is given by DFC.

d) Matching funding/other sources of funding

The funds that will be requested from other sources must be described in the Budget Section of the PDF forms. **Principal Investigators must have verified with the funding agencies/partners if the Project complies with the research priorities and guidelines of the agency/partner.** Matching funds should come from sources other than dairy farmer organizations (e.g., government, academia, other ag or food industry partners)

Principal Investigators must submit their Projects to the funding agencies/partners for matching funds no later than 90 days after the receipt of the conditional approval of the Project by DFC, unless specified otherwise in DFC decision letter.

VII. MEMORANDUM OF AGREEMENT

The funding is to be used entirely for specific activities supervised by the Principal Investigator. Prior to initiation of the Project, a Memorandum of Agreement (available to view upon request) is entered into by and between the research institution, the Principal Investigator, DFC and other funding partners.

The Memorandum of Agreement defines the rights and obligations of the research institution, the Principal Investigator, DFC and other funding partners, including without limitation:

- Principal Investigator and Research Institution's responsibilities in the conduct of the Project;
- Financial responsibilities of the parties with respect to the Project;
- Progress and final reports;
- Publications of Project results;
- Intellectual property rights;
- Commercial use of the Project results; and

- Confidentiality

In accordance with the provisions of the Memorandum of Agreement, research institution and/or Principal Investigator grants DFC with a license to use the Project results for internal, non-commercial and research purposes; with a first option to negotiate an exclusive commercial licence to commercially exploit Project results; and with a right of first refusal to match any third-party offer to commercialize the Project results. In the event where DFC is not involved in the commercialization of the Project results, DFC shall earn a royalty based on the net profits generated by the research institution from the Project results; the percentage of the royalty would be determined prior to commercialization through good faith negotiations based on commercially reasonable terms.

VIII. ADDITIONAL INFORMATION

Failure to complete and submit the Letter of Intent or the Full Proposal in the manner outlined in these guidelines may delay or preclude review by the Production Expert Scientific Advisory Committee for funding by DFC. Deviations from the above guidelines will be allowed only if approved by DFC.

All inquiries for additional information pertaining to any of the above points should be directed to dairyresearch@dfc-plc.ca.

APPENDIX RESEARCH PRIORITIES

For the research **PROGRAM** component:

- All research priorities identified under 2022-2027 [National Dairy Research Strategy](#).
- Additional priority: Explore actions that could be taken at the farm level to bring the Solids Non-Fat to Fat ratio (SNF/F) closer to the Canadian market needs.

For the research **PROJECT** component, research priorities below:



DAIRY FARM SUSTAINABILITY AREA

Targeted outcome: Sustainable feed cropping systems are defined for long term productivity

Research Priorities:

- Design crop rotation systems and study complex forage mixtures adapted to the region and soil type, intercropping, interseeding, double cropping and cover crop practices to improve soil health, control weeds, optimize yields and maintain nutrient value throughout entire season.
- Improve forage quality, yield and resistance (drought, flooding, winter survival) through breeding and management practices (for cropping and conservation), such as increasing the nutritive value, extending productive longevity and reducing fall dormancy of alfalfa and increasing the yields of grasses (regrowth) during the summer.
- Optimize best management practices for manure, nutrients, and pesticides in various cropping systems.
- Explore alternatives to plastic silage materials (e.g., bio-degradable materials, use of milk components in the development or creation of bioplastics, etc.) while ensuring that alternatives are not damaging to the environment (e.g., non-degradable residues or microparticles).

Targeted outcome: Canada-specific strategies to cost-effectively reduce greenhouse gases (GHG), maximize carbon sequestration and adapt to climate change are identified

Research Priorities:

- Identify strategies to mitigate GHG emissions (primarily from cows and manure management) that take into consideration the practicality, impact/effectiveness versus costs, using trans-disciplinary approaches (e.g., living labs or open innovation).
- Develop a recognized standardized methodology to measure on-farm carbon sequestration and assess its potential to offset dairy GHG emissions and to allow for global comparisons.
- Identify and evaluate, in the Canadian context, practices and new genetics of plants/crops and animals to tackle current and future challenges (e.g., novel pathogens, heat and cold

stress, changing seasons, drought, floods/severe water strikes) associated with climate change.

- Investigate synergies/trade-offs between climate change adaptation and GHG emissions mitigation strategies.

Targeted outcome: The potential of innovative on-farm water use and conservation practices and technologies is assessed

Research Priorities:

- Develop practices or technologies to maintain soil moisture, even in drought conditions, limit water erosion during heavy rainfall and decrease water use associated with growing crops.
- Identify opportunities to re-use water and devise low cost on-farm water re-capture and treatment technologies.
- Explore the potential of concentrating milk (extracting water) on the farm or in a processing center (for example when transporting milk over long distances or between provinces) and estimate the impact on milk quality, transport, processing, on-farm by-product management, profitability, etc.

Targeted outcome: Cost-effective and concrete measures to increase biodiversity are clearly defined

Research Priorities:

- Assess and demonstrate the short- and long-term benefits and impacts of increased biodiversity on dairy farms.
- Investigate the potential of strategies such as pasture lands, complex crop mixture, use of plants in intercropping or on uncropped land (riparian zone, wetland restoration, woodlots, etc.), and other initiatives (e.g., bat boxes) to promote plant and animal biodiversity and pollinating insects.

Additional priority:

- Explore actions that could be taken at the farm level to bring the Solids Non-Fat to Fat ratio (SNF/F) closer to the Canadian market needs.

Note: Economic impacts of new strategies, tools, practices, and technologies to be implemented on Canadian dairy farms must be assessed as part of the Project.