DAIRY PRODUCTION RESEARCH FUNDING PROGRAM

GUIDELINES

September 2025

I. INTRODUCTION

Dairy Farmers of Canada (DFC) is a non-profit organization funded by dairy farmers across Canada and representing more than 9,000 dairy farms in the country. 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 for the benefit 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 on-farm innovation, increase farm efficiency and sustainability, enhance animal health, care and welfare practices, and deliver tangible benefits to dairy farmers as well as the broader dairy sector. Research projects submitted under the Program should aim to address issues that have a national perspective.

Please refer to the Appendix for the targeted research priorities for this Call for Proposals.

III. ELIGIBILITY

Researchers from Canadian universities and colleges and/or federal or 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 for other activities related to 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 be the Principal Investigator for two projects simultaneously carried out under this Program. However, the same researcher can be a co-investigator for no more than one additional project.

Networking is encouraged. Whenever possible, projects should involve complementary teams of researchers from across Canada.

INELIGLE PROJECTS: Research and development activities primarily aimed at developing, validating, or promoting commercial products or services are **not eligible** under this Program. Projects whose main objective is to generate data for a specific company or to demonstrate the effectiveness of a product, technology, or service are also **ineligible**. In addition, private companies may not participate as co-

investigators or collaborators on funded projects.

ETHICS AND ANIMAL CARE APPROVALS: Projects involving animals must receive prior approval from the institution's Animal Care Committee, in accordance with the guidelines of the Canadian Council on Animal Care (CCAC). Although this approval is not required at the time of proposal submission, it must be obtained before research activities can begin. Researchers are encouraged to initiate this process as early as possible to avoid delays if funding is approved.

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.

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 reviews, DFC's Canadian Dairy Research Council will make the final decision regarding the selection of the Letters of Intent. Principal Investigators whose Letters of Intent are considered to be the most relevant to address the research priorities targeted under this Call for Proposals, to have an appropriate research approach, and to have the potential to generate impactful knowledge and innovation for the dairy sector will be invited to submit a Full Proposal (the "**Proposal**").

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

A selected Letter of Intent and/or an approved Proposal do not ensure Project funding per se. Funding will be confirmed only upon the signing of a Research Agreement (the "**Agreement**") (section VI).

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

V. FUNDING APPLICATION PROCESS

a) Letter of Intent

The Letter of Intent must be submitted using the Letter of Intent Form to dairyresearch@dfc-plc.ca **by December 5, 2025**. The Letter of Intent Form can be found on the DFC website. *A confirmation of receipt and eligibility will be provided within five (5) business days of receiving the Letter of Intent.*

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-contained 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, 11-points size.

Letters of Intent submitted in French will be translated for English reviewers; however, the Principal Investigator and/or their team will not have the opportunity to 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 selection of a Letter of Intent, DFC will send an invitation to submit a Proposal to the Principal Investigator and will provide a Full Proposal Form to be completed and submitted to dairyresearch@dfc-plc.ca **by April 10, 2026**.

Major changes from the Letter of Intent will not be permitted unless they were specifically 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, 11-points size.

- **The body of the Full Proposal Form is self-contained and must not include additional pages and/or attachments, except for tables and figures. Up to three manuscripts can be appended to the Proposal if they are directly relevant to the 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 format (NSERC) or on the DFC CV Form (available upon request), must be appended to the Proposal.

  A co-investigator is a scientist who will conduct some research activities and is responsible for one or more objectives under the proposed Project. A co-investigator would be receiving funds to conduct their part of the research.

- **Title of the Project**
  A good title is very important. It should be concise and clearly indicate the subject/topic of the proposed Project and reflect its main purpose. No abbreviations or acronyms should be used. The title may be modified upon mutual agreement between DFC and the Principal Investigator.

- **Project details**
  The Full Proposal Form must include detailed information on background; objectives and hypotheses; experimental approach (including power and sample size calculations); milestones; team expertise and training of highly qualified personnel; potential benefits and economic impact for the dairy sector; and knowledge translation and transfer opportunities.

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

c) Budget information

The funding provided under the Program is for a duration of one (1) to five (5) years. The total amount requested from DFC can be up to $150,000 and represent up to 50% of the total Project budget.

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

- **Personnel**
  Eligible categories include:

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

  DFC reserves the right to request further information from the research institution regarding fringe benefits. Salaries for the Principal Investigators and co-investigators are not eligible.

- **Major equipment**
  DFC does not provide equipment funding. However, in special cases where equipment is essential to the Project, DFC may, at its sole discretion, contribute to the purchase of major equipment upon a written request 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 its routine maintenance.

- **Publications and publication costs**
  DFC encourages the publication of research results in reputable, peer-reviewed scientific journals. The choice of the journal rests with the Principal Investigator. Preference 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**
  DFC encourages travel to relevant scientific meetings within Canada or abroad to present research results from the funded Project.

- **Other expenses**
  Computer costs related to data analyses and other routine expenses incurred as part of the Project funded are eligible.

- **Overhead charges or indirect costs**
  DFC will not pay the research institution, the Principal Investigator and/or the co-investigator(s), as the case may be, for any overhead/indirect costs for DFC funded projects.

- **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 their research priorities and guidelines.

Matching funds must cover **at least 50% of the total Project budget** and must come from sources other than dairy farmer organizations (e.g., government, academia, other agriculture or food industry partners). In-kind contributions may be considered as matching funds, such as scholarship for summer and/or graduate students, materials and supplies, technician and/or professional time, user fees, and laboratory analyses. Please note that an NSERC Discovery Grant is not eligible as matching funds.

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's decision letter.

VI. RESEARCH AGREEMENT

The funding must be used entirely for specific activities supervised by the Principal Investigator. Prior to initiation of the Project, an Agreement (template available upon request) will be entered into by and between the research institution, the Principal Investigator, DFC and other funding partners, if applicable.

The Agreement defines the rights and obligations of the research institution, the Principal Investigator, DFC and any other funding partners, if applicable, 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,
- Reports,
- Publications of Project results,
- Confidentiality,
- Ownership of intellectual property and other property rights, and
- Commercial use of the Project results.

In accordance with the provisions of the Agreement, the research institution and/or Principal Investigator grant DFC a licence to use the Project results for internal, non-commercial and research purposes; a first option to negotiate an exclusive commercial licence to commercially exploit Project results; and 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.

VII. ADDITIONAL INFORMATION

Failure to complete and submit the Letter of Intent or the Full Proposal in accordance with 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 regarding any of the above points should be directed to dairyresearch@dfc-plc.ca.

APPENDIX
TARGETED RESEARCH PRIORITIES

Projects must address at least one of the 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 centre (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.

ANIMAL HEALTH, CARE AND WELFARE AREA

Targeted outcome: Effective solutions to prevent and mitigate diseases and sustainably reduce the use of antimicrobials are developed

Research priorities:

- → Monitor endemic diseases (e.g., Johne's disease, leukosis) and emerging diseases (e.g., Salmonella Dublin infection, anaplasmosis, etc.) and develop effective practices and methods to reduce their prevalence, including better defining key biosecurity measures and investigating the development of promising new vaccines and other preventive technologies for priority diseases.
- → Develop udder health monitoring systems, easy-to-use on-farm diagnostic tools, well-defined clinical treatment protocols and improved practices to prevent and control mastitis.
- → Design quick, accurate, consistent, cost-effective means for routine locomotion assessments on farm (using Artificial Intelligence and other automated means) and easily accessible data monitoring systems to improve early detection, treatment and pain management of lameness in individual dairy cows and younger dairy cattle.
- → Advance knowledge to reduce mobility issues and improve hoof health, focusing on the disease prevention, including housing and management, and early detection of digital dermatitis, sole ulcers and claw lesions.

→ Provide strategies to reduce overall antibiotic use, especially Category I antimicrobials. Develop evidence-based effective protocols for lower categories antimicrobials and alternatives to antimicrobials while maintaining optimal animal health and welfare.

Targeted outcome: Practical and sustainable (environmentally, economically and socially) housing and management options are identified and adapted to evolving Canadian climate change for the best care and welfare of dairy cattle of all life stages

Research priorities:

→ Identify international trends and practices in best dairy management and housing practices and how they can be adapted to the Canadian context.

→ Create housing designs of the future that will increase animal welfare and mitigate environmental impact, incorporating features of naturalness, using renewable materials and resources, adapted to Canadian climate change (wide temperature variations, heat stress, cold stress), integrating precision livestock farming technologies and considering wise energy consumption and generation while preventing stray voltage.

→ Investigate the impacts of new construction and renovations of housing systems (e.g., recycled manure bedding, compost pack barn, outdoor/pasture access, etc.) on animal health, welfare and handling, onset and development of mobility issues and other injuries, and potential trade-offs between animal welfare, production, labour, cost and environmental sustainability.

→ Expand low-stress handling and transportation knowledge and know-how for all age groups of cattle.

→ Continuously improve calf management for long-term health and performance, through optimal calving management, housing and caring of neonates.

→ Define solutions to facilitate adaptation and compliance with the new Dairy Code of practices.

Targeted outcome: Dairy cattle nutrition and feeding knowledge is refined for improved feed efficiency, reduced production costs, and optimized milk composition and quality

Research priorities:

→ Advance knowledge in precision feeding through automation and assess the efficiency of these tools and systems. Evaluate the integration and use of precision feeding on commercial farms and methods to accurately measure and monitor individual dry matter and water intake and feed efficiency, including managing the impact of pasture/outdoor access on feeding protocols and management, and on GHG emissions.

→ Increase knowledge on use/upcycling of by-products and co-products as feed ingredients in a context of sustainable development.

→ Optimize transition period feeding and management practices to reduce metabolic disorders.

→ Understand more thoroughly the impact of water profile, feeds and feeding on milk composition/processing properties and improve the ability to monitor milk composition and quality continuously at individual and herd levels (including alternatives to increase milk fats).

Targeted outcome: Strategies and tools to improve genetics and reproduction performance are created

Research priorities:

- → Continuously advance the genetics of Canadian dairy cattle to reduce environmental impacts, improve animal health, welfare and reproduction and adapt to climate change, while promoting genetic diversity.
- → Develop targeted reproductive strategies that minimize interventions while maintaining/improving fertility.
- → Evaluate alternative breeding strategies (like extended lactation, beef cross breeding, etc.) that ensure reproduction efficiency and optimal management of calves destined for purposes other than dairy production.
- → Better understand the effects of genetics (e.g., A2) on the composition of milk and its processing properties.

Note 1: Economic impacts of new strategies, tools, practices, and technologies to be implemented on Canadian dairy farms must be assessed as part of the Project.

Note 2 - Genetic Improvement Research: Dairy Farmers of Canada supports research in dairy cattle genetic improvement through the DairyGen consortium, led by Lactanet in collaboration with Holstein Canada, Semex Alliance, and other partners. DairyGen is responsible for setting research priorities, reviewing proposals, and allocating industry funds in this area. Researchers interested in dairy cattle genetic improvement should submit their letters of intent and applications directly to DairyGen throughout the year, and not under this Call for proposals. For more information, please contact Filippo Miglior at fmiglior@lactanet.ca.