



Educational leadership chair in cheese technology

Duration: 2020-2025

Highlights

- The cheese industry is facing a growing shortage of skilled labour at both the artisanal and industrial scales.
- Creating an Educational Leadership Chair (ELC) in Cheese Technology is one way to address labour needs.
- The chair will establish a university-level training program, in addition to developing a research program exclusively dedicated to cheese-making technologies.
- ELC graduates will be better prepared for the realities of the industry. They will be able to support innovation to ensure that Quebec's cheese industry remains competitive in this new context of free trade, in addition to integrating sustainable development concepts directly applicable to cheese production.
- The proposed training program includes the creation of new cheese technology courses for Université Laval's food science programs as well as continuing education opportunities such as a spring semester school (*École du printemps*) for actors in the cheese industry associated with the production sector.
- Research activities will focus on enhancing control over cheese variability and improving the efficiency of manufacturing processes.

Objectives

- To create an internationally recognized centre of excellence in cheese production;
- To develop a university-level training program in cheese production;
- To bring industry stakeholders together around new continuing education projects;
- To implement a research program exclusively dedicated to cheese-making and that addresses industry needs;
- To generate new knowledge in order to boost industry competitiveness.

Results and potential benefits

- **Economic benefits**
 - **Enhanced industry competitiveness:** The ELC aims to provide multi-disciplinary training and develop new knowledge to improve the industry's competitiveness.
 - **Reduced product variability:** Determining the sources of cheese variability is at the heart of the ELC's research program. Further characterization of milk is envisaged to develop the milk standardization strategies of tomorrow.
- **Environmental benefits**
 - **Improved dairy plant efficiency:** Through the research program, the chair will focus on comparing technological itineraries for a reduced impact on resource use, as well as on developing new technologies that allow for better use of "overlooked" dairy components such as lactose.
- **Social benefits**
 - **Better understanding of citizen and consumer expectations:** Combining concepts in cheese-making technologies and industrial performance management with business internships, the training program will better prepare food science graduates for the realities of the industry and allow them to better meet consumers' increasingly high expectations.



Innovative aspects

- Creation of a university-level training program in cheese-making that alternates between classwork and business internships (4 months).
- Development of management skills to fine-tune student training in cheese-making technologies.
- Continuing education: creation of a spring semester school focused on adapting cheese-making processes.
- Development of a research program focused on the needs of the cheese-making sector.

Professionals trained

The first graduates of the training program will enter the labour market by 2025. In terms of research, the ELC's budget allows for the recruitment of one undergraduate student, three master's students, and one PhD student for the five-year duration of the chair.

For further information

The chair's work have began in 2020. Novalait's Forum Techno 2023 will be an opportunity to present the first research results, which will also be published in peer-reviewed scientific journals, in addition to being presented at national and international conferences. Further, articles aimed at the general public will be written to raise awareness of the chair and its activities.

Financial contributions

The chair is also funded by cash and in-kind contributions from:

- Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ)
- Novalait
- Agropur Dairy Cooperative
- Lactalis Canada
- Saputo
- Conseil des industriels laitiers du Québec (CILQ)
- Centre d'expertise fromagère du Québec (CEFQ)

Total budget: \$937,750

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