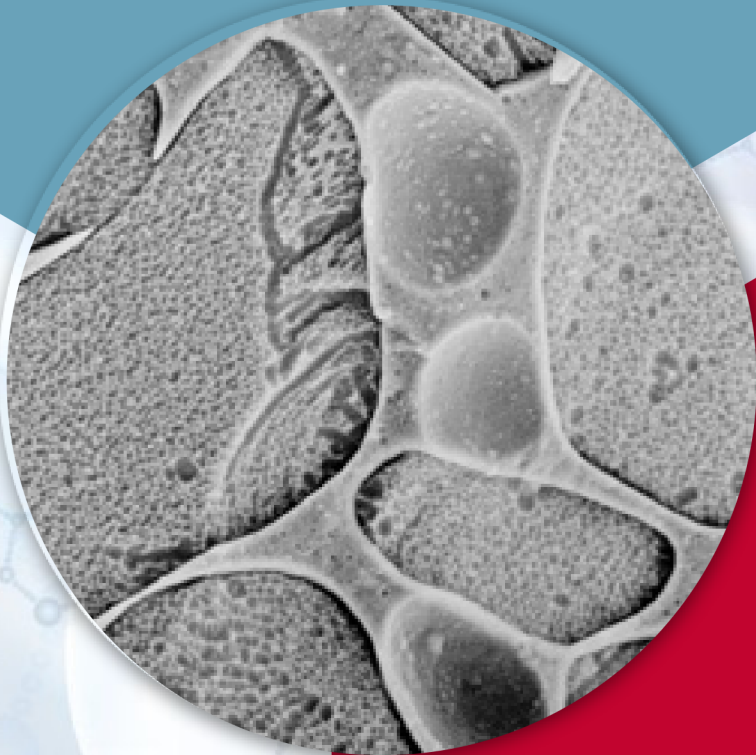


ICE CREAM & FROZEN DESSERT



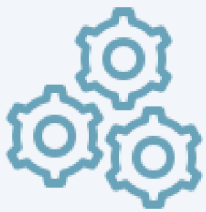
SOLUTIONS &
SERVICES

WHAT WE DO



Research & Development

Faced with a pressing challenge? Our world-class research unit can provide the data, insights, and practical solutions that you need to face your most pressing challenges.



Custom Processing

Looking to cost-effectively validate an ingredient or processing change? Produce test market samples? Our certified dairy pilot plant has the flexibility you need.



Analysis

Confronted with inconsistencies between production runs? Equipped with a comprehensive analytical suite, we characterize ingredients, mixes and finished products to diagnose defects and understand your product better.



Product Development

Challenged with evolving consumer trends and unstable supply chains? Our product development team can accelerate your development with consumer and market demands in mind.

RESEARCH & DEVELOPMENT

YOUR CHALLENGING PROBLEMS, OUR TEAM OF WORLD-CLASS EXPERTS.



By working with experts from the University of Guelph, our team takes an applied research approach by collecting insights and developing practical strategies that will help you solve your most challenging problems.

Activities include, but are not limited to:

- Dairy and non-dairy fat interactions and functionality
- Plant-based protein functionality
- Characterization and analysis of novel ingredients
- Physical and chemical analysis of ingredients and formulas



**TEST PROCESS CHANGES WITH
SMALL-SCALE BUT EQUIVALENT
PROTOTYPING.**

Efficient and cost-effective processing is enabled in by our OMAFRA-certified pilot plant. Discover the ideal homogenization parameters for your unique formula to ensure optimal product quality and stability. Verify processing or formulation changes on final product performance or assess dynamic freezing conditions like overrun.

CAPABILITES

- Replication of any commercial pasteurization process
- Customizable homogenization
- Wet milling
- Batch and continuous freezing
- Custom inclusions and ripples
- Molded products

PROCESSING

Processing can be combined with analysis (see next page) for data-driven insight into processing development.



**GAIN A DEEPER
UNDERSTANDING OF YOUR
PRODUCTS, DIAGNOSE
DEFECTS, AND DEVELOP DATA-
DRIVEN SOLUTIONS.**

ANALYSIS

Is your product not comparing to a target? Have you changed an ingredient and lost functionality? Achieve formula standardization and final product quality and consistency through our comprehensive analytical suite. Our analytical experts are able to evaluate the properties of your mixes and finished products to identify how they contribute to desirable or undesirable characteristics.

INSIGHTS

- Fat globule particle size
- Fat destabilization
- Freezing point
- Glass transition temperature
- % Frozen water
- Ice crystal size & growth
- Melting point
- Melt rate
- Texture
- Hardness
- Density & overrun

SHELF-LIFE TESTING

The GFIC has created an ice cream-specific real-time or accelerated shelf-life analysis suite to assess the stability of your product over time.

PRODUCT DEVELOPMENT

BRING HIGH-VALUE PRODUCTS TO THE MARKET FASTER WITH OUR INNOVATION TEAM WHO USE SCIENTIFIC, CONSUMER, AND INDUSTRY INSIGHTS TO BRING PRODUCTS FROM CONCEPT TO STORE SHELF.



From concept ideation, formulation optimization, pilot trials and product evaluation through to manufacturing; we can undertake all aspects of ice cream and frozen dessert development. In addition to line extensions, the GFIC has unique expertise in novel formulas which include:

- plant-based
- clean label
- keto/low carbohydrate
- low sugar
- low fat
- and more

ICE CREAM TECHNOLOGY SHORT COURSE

CONTINUOUSLY OFFERED
SINCE 1914, THE ICE CREAM
SHORT COURSE AT THE
UNIVERSITY OF GUELPH IS
ONE OF A KIND IN CANADA.



This intensive course, taught by [Dr. Douglas Goff](#), a world-renowned expert in ice cream technology, provides participants with knowledge of the ingredients, processing and quality features of ice cream. Various sessions examine the technical points of ice cream manufacturing, with an emphasis on the quality of the finished product. The course is designed for small to large scale manufacturers, suppliers and retailers. This course is also suitable for those interested in starting their own ice cream manufacturing business, whether they have previous ice cream making experience or not.

To learn more, contact fsevents@uoguelph.ca

ABOUT US



A LEGACY IN ICE CREAM TECHNOLOGY.

Innovation in ice cream began at Guelph as early as 1914 and has continued to be an active field of research at the university ever since. Drawing on this knowledge, the GFIC provides applied research and practical development services to food enterprises. Taking into account each partner's unique challenges, we develop tailored solutions that improve the quality, functionality, and cost-effectiveness of products in order to remain competitive in today's marketplace.

ICE CREAM INNOVATION AT GUELPH

CONTACT US

GET IN TOUCH

TO LEARN MORE ABOUT
OUR CUSTOM
SOLUTIONS, PLEASE
CONTACT US.



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To learn more about all GFIC services, visit
foodscienceinnovation.ca