

FOOD TECHNOLOGY CENTRE

Innovation for the Food & Bioresource Industries

Prince Edward Island, CANADA

NEWSLETTER

April 2011

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Free Preliminary Consultation

FTC provides free preliminary consultation services and will help you source appropriate funding for your projects.

Funding Programs

Links to information about programs available from our funding partners are available on FTC's website. See [Funding Programs](#).

The **PEI Product Development Fund** is available to Prince Edward Island companies to access the professional, technical assistance services of the Food Technology Centre. This assistance can be applied to the development and testing of new and improved products and processes, and other technical development-related activities. The fund will contribute 50% of project costs to a maximum of \$50,000.

Success Stories

We love to help our clients succeed! A few of their success stories are available on FTC's website. See [Success Stories](#).



Anthocyanin-rich potato granules processed at the Food Technology Centre

Research on Potato Products

<The following text is excerpted from "Innovation Express, Science News from Agriculture and Agri-Food Canada", Vol. 3, No.1/ABIP Supplement>

The BioPotato Network combined the expertise of plant breeders, food scientists, molecular biologists, and plant production specialists to commercialize potato extracts, develop healthier potato varieties, and discover new uses for potatoes. One of the four areas of focus for the network was the development of potato functional foods and nutraceuticals. This research

involved the investigation of potato bioactives and their health interactions at the University of Prince Edward Island, the National Research Council's Institute of Nutrisciences and Health in Charlottetown, Dalhousie University in Halifax and the Potato Research Centre in Fredericton.

In one research project, scientists at the **Food Technology Centre** adapted the potato granulation process used to make dehydrated instant mashed potatoes to include anthocyanin-rich colourful potatoes bred at AAFC's Potato Research Centre.

Anthocyanins, the natural colourants found in fruits and vegetables, have recently been studied for their nutritional aspects and antioxidant activities. The research chefs at Holland College, Canada's Smartest Kitchen, used the anthocyanin-rich potato granules to develop new functional food product concepts for commercialization such as colourful mashed potatoes.

Determination of Anthocyanins Content in Foods and Nutraceuticals

By Gosia Zawadzka, Senior Analytical Technologist

Today, there is an increased interest in the presence of anthocyanins, and their concentration in foods and nutraceuticals. This interest is linked to their health benefits. Anthocyanins, like other antioxidants, are believed to reduce the risk of heart disease and cancer, as well as to protect brain cells from aging.

Anthocyanins are responsible for the red, purple and blue colour of fruits, vegetables and grains. The anthocyanin content can also be a useful indicator of quality control of fruit juices, fruit and vegetable products, nutraceuticals and natural colourants.

An analytical method offered by FTC determines total monomeric anthocyanins concentration based on their ability to reversibly change structure at different pH levels. The structural change of these monomeric anthocyanins is expressed as mavidin-3-glucoside equivalents in mg per litre or kilogram of sample analysed.

Microbiology Laboratory Services

- [Sample Submission forms](#)
- [Requirements for the collection and shipping of samples](#)
- [Specific instructions for the collection and shipping of shellfish samples](#)

Preparations are required prior to receipt of samples; therefore, please call 24 hours prior to dropping off samples or results will be delayed. Micro lab receiving hours: Monday to Thursday, 8:30 a.m. to 3:30 p.m., unless previous arrangements have been made.

To obtain swabbing supplies and sterile bottles, or for further information about our laboratory services, please call our microbiology laboratory at (902) 368-5937.

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However, the natural material usually contains a mixture of anthocyanins and the proportions of these will vary naturally.

If you have an interest in getting more information about this testing, or have other questions relating to the processing of foods containing anthocyanin, please contact Gosia Zawadzka, Senior Analytical Technologist, at (902) 368-4051 or by email: mgzawadz@foodtechnologycentre.ca

Canadian Food Health Claim Roadmap Tool

Recently, Agriculture & Agri-Food Canada established the [Food Regulatory Issues Division \(FRID\)](#) to provide information and guidance directly to industry on food policy and regulatory issues, with regard to innovative foods with health benefits. Now, FRID has unveiled the **Canadian Food Health Claim Roadmap** – a new tool to help companies choose options, with respect to health and diet claims for their food and ingredient products.

They have broadcast this Roadmap through a series of two webcasts (just follow the highlighted links below to the Events page and log in to view). The first was [A Business Management Tool: Part 1 \(An overview\)](#). Also available on the site are PDF copies of the slide presentation, the Nutrient Claim/Health Claim flow chart, and the draft Roadmap. Each of these has several references and links to appropriate regulations (such as CFIA Guide to Nutrition Labelling, etc).

The second webcast: [Canadian Food Health Claim Roadmap: A Business Management Tool \(Part 2 - Case Study\)](#), involved a case study about a "smoothie" beverage product, made from fruits and vegetables, along with grains. They used this product to work through the flowchart, to determine which claim to pursue, from a list including nutrient claims, health claims, diet claims, novel food, novel fibre, food with added vitamins & minerals or food additive.

One interesting consideration that appears to be less known with respect to nutrient claim options is the Quantitative Declaration of Non-Nutrients. This allows manufacturers to declare the amount of a non-nutrient on the front panel of a food package (i.e., not in nutrition table). Examples included: "contains x mg of epicatechin (a polyphenol) per y mL of (stated serving size)". This provides an opportunity to highlight some of the functional ingredients available in the product, such as antioxidants and other bioactives.

The [draft Roadmap document](#) <a 130 page PDF file> also includes a list of Food Science & Technology Centres in Canada that can help industry navigate through the decision making process and provide clarification regarding regulations, labelling, etc. This includes the PEI Food Technology Centre.

If you have any questions or require more information please contact info.FRID-DEIRA@agr.gc.ca. The [FRID website](#) contains other resources and tools.

Food Safety Workshops

[HACCP and the Control of Listeria Workshop](#) (3 days) – May 16-18, 2011, Moncton, NB (Daily 9:00 to 4:00)

Course outlines of all our Food Safety Workshops are available on the [Training page](#) of our FTC website. For further information on these, or if you would like a course held in your area, please contact Jim Landrihan at (902) 368-5772 or by email at jklandri@gov.pe.ca