

FOOD TECHNOLOGY CENTRE

Innovation for the Food & Bioresource Industries

Prince Edward Island, CANADA

NEWSLETTER

March 2007

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At the [International Boston Seafood Show](#), March 11-13, Yaw Dako, Food Technologist, will be available to talk with you about our services. Check for him at our booth.

Free Preliminary Consultation

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

The **Prince Edward Island Food Products Development Fund** will assist Island businesses with projects conducted at the Food Technology Centre. Support is also available for product development activities conducted at FTC for companies in our neighbouring provinces through the NS, NB, and NL governments. Contact Yaw Dako, Food Technologist (902-569-7699)

FTC provides certified **organic processing** services. Contact Dr. Leigh Gao, Food Scientist/Engineer at 902-368-5465.

Microbiology Laboratory Services:

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

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

Supercritical Fluid Extraction Workshop

The PEI Food Technology Centre, in partnership with Agriculture and Agri-Food Canada, is offering a 2½ day [workshop on Supercritical Fluid Extraction](#) tentatively scheduled on March 28-30, 2007, in Charlottetown, PE. This workshop may be moved to dates in April. The presenter will be Mr. Rodger Marentis, a consultant with many years of experience in this technology.

The workshop will cover fundamentals of supercritical processing and examples of industrial applications, with emphasis on practical implementation of the technology. Following the workshop, there will be the opportunity for meetings with Mr. Marentis and FTC for those interested in discussing potential extraction processes in detail.

Good Laboratory Practices Workshop

The PEI Food Technology Centre, in partnership with Agriculture and Agri-Food Canada, is coordinating a [Good Laboratory Practices \(GLP\) Workshop](#) to be held in Charlottetown on March 19-20, 2007. Instruction is being provided by [BioTalent Canada](#) and [CanReg](#).

Government and industry are concerned about the quality of non-clinical health and environmental safety studies upon which hazard assessments are based. As a consequence, Organisation for Economic Co-operation and Development (OECD) Member countries have established Principles of Good Laboratory Practice (GLP) as the criteria for the performance of these studies.

The principles of GLP are intended to promote the development of quality test data. Comparable quality of test data forms the basis for the mutual acceptance of data among countries. Unless specifically exempted by national legislation, the principles of GLP apply to all non-clinical health and environmental safety studies required by regulations for the purpose of registering or licensing pharmaceuticals, pesticides, food and feed additives, cosmetic products, veterinary drug products and similar products, and for the regulation of industrial chemicals.

This two-day course will present the GLP principles, with emphasis on practical applications for participants.

Duration: Two days; lunches and refreshment breaks will be provided.

Course Fee: \$375 + GST per registrant. If two or more registrants attend from the same company, this fee is reduced by 20%.

The Importance of Good Laboratory Practices

By Jillian Larkin, Assistant Microbiology Laboratory Technologist

The first Good Laboratory Practices (GLP) guidelines were written in the late 1970's and have since been implemented in both clinical and nonclinical laboratories on an international scale. GLP, when adhered to by laboratory personnel, are the basic principles to providing high quality results to clients, and companies may be confident that their labs are operating safely.

Staffing laboratories with qualified and educated personnel who can effectively communicate and utilize GLP principles is essential. GLP covers basic concepts such as the appropriate use of Personal Protective Equipment (lab coats, safety glasses, gloves) and sanitizing work areas with suitable disinfectants. GLP also covers critical concepts such

FTC can provide solutions in **natural products extraction** and nutraceuticals/functional foods product development. Contact Dr. Edward Charter, Manager, Food Science & Natural Products Extraction, at 902-368-5912.

Food Safety Workshops

Upcoming courses:

[Self Verification of Your QMP Plan Workshop](#), Mar. 28-29, 2007 at Charlottetown, PE.

[Enhanced Leadership Skills, Level II Course](#), Mar. 26-27, 2007 at Charlottetown, PE.

[HACCP\(FSEF\) Workshop](#) at Halifax/Dartmouth, NS. **Revised Date: April 23-25, 2007.**

Course outlines of other Food Safety Workshops are available on the [Training page](#) of our FTC website.

For further information on these, please contact Jim Landrigan at 902-368-5772 or by email at jklandri@gov.pe.ca

Training for Retort Operators

Our retort training workshop completed in January was so successful we decided to hold another one. The Food Technology Centre is planning to present another five-day retort operator's course entitled [Canned Foods: Thermal Processing and Container Evaluation](#) in September, 2007.

Prince Edward Island Food Technology Centre

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Feedback: If you have ideas for future newsletters or any comments we would love to hear from you. Please call Janet Docherty at 902-368-5226 or email jvdocher@gov.pe.ca

as calibrating equipment and utilizing proper methods for sample collection, storage, and handling. All aspects of GLP are important because if one area is deficient, it will directly impact on other areas within the laboratory.

The safety of laboratory personnel is a responsibility that lies in the hands of both the employer and the employee. Documents such as Standard Operating Procedures (SOPs), Material Safety Data Sheets (MSDS), and Method Forms pertaining to the work environment must be made available by the employer. New employees must go through an orientation process to be made aware of all relevant documentation. It is however, ultimately the role of the employee to implement these procedures to help maintain a safe working environment and to produce the highest quality results attainable. By utilizing the concepts of GLP and combining the efforts of employers and staff, high quality results can be produced while keeping workplace hazards to a minimum.

Featured Equipment: Sepragen QuantaSep 100 Automated Chromatography System

By Ashley Coyle, Assistant Natural Products Technologist



Column chromatography is a preparative technique used to obtain pure chemical compounds from a mixture of components. The amount of time a component takes to elute from the column is based on its chemical properties. Elution of the column causes the components to separate and fractions of varying chemical compositions are produced. The composition of these fractions can be monitored analytically using UV absorption, for example. Automated systems, such

as FTC's Sepragen *QuantaSep 100* Automated Chromatography System, can minimize human involvement in a traditionally time consuming process. The *QuantaSep 100* offers a flow range of 1 - 100 mL/min at low pressures and has added measures for safety, reliability and documentation. The system's fluid handling, control and power modules are all conveniently contained in one cabinet, and can be controlled remotely by computer using the system's user-friendly software.

The *QuantaSep 100* allows for automated gradient pumping, column switching and fraction collecting, which can be based on time or changes in UV absorption, pH, and/or conductivity. The *QuantaSep 100* system can be used with any type of column, however, Sepragen Corporation offers patented radial flow columns that allow high throughput at low pressure. Although traditional column chromatography is very useful for determining optimal chromatography conditions, an automated system can then be used to scale up a process or to improve the accuracy and reliability of the separation.

For further information, please contact Dr. Edward Charter, Manager, Food Science & Natural Products Extraction, at 902-368-5912.

Funding Profile: Agri-Opportunities Program

On January 23, 2007, the Honourable Chuck Strahl, Minister of Agriculture and Agri-Food Canada announced \$134 million towards the new [Agri-Opportunities Program](#), an Agriculture and Agri-Food Canada (AAFC) program that will focus on the commercialization of new agri-based products, processes and services. The Agri-Opportunities program will help good ideas get from the drawing board into the market. It is designed to enhance the competitiveness and prosperity of the Canadian agricultural sector through transition into new and value-added areas of opportunity. The objective of the program is to push new products (agriculture, food and bioproducts), processes and services along the innovation chain and move them to the commercial phase. Individuals, producers, agri-businesses, cooperatives, nonprofit and for-profit organizations and academia are eligible to apply for funding which will be delivered through contribution agreements. The maximum contribution per project and per applicant will be capped at \$10 million over a five-year period.

The application is a two-step competitive process. For Step One, proposal synopses are accepted on an ongoing basis. Successful applicants will then forward a full proposal. The first deadline to submit full proposals (Step Two) is April 20, 2007. Additional information and the program application are available on the Agriculture and Agri-Food Canada website: www.agr.gc.ca. You can also e-mail: agri-ops@agr.gc.ca or call 1-866-367-8506.