

FOOD TECHNOLOGY CENTRE

Innovation for the Food & Bioresource Industries

Prince Edward Island, CANADA

NEWSLETTER

March 2009

Featured in this issue:

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- International Potato Processing & Storage Convention 2009
- Natural Products from Marine Sources
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- Food Safety for Maintenance Workers Workshops

FTC is exhibiting at the [International Boston Seafood Show](#), March 15-17. Yaw Dako, Food Technologist, and J.Gerald Arsenault, Business Development Manager, will be available at Booth #1259. For an appointment, please contact yadako@gov.pe.ca or igarsenault@gov.pe.ca

Success Stories

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

Free Preliminary Consultation

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

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.

Client Profile: Prince Edward Island Preserve Company

By Esther Lee, MSc, Food Scientist



In May 2007, the Food Technology Centre (FTC) was contacted by the Prince Edward Island Preserve Company when a shipment of their preserves was held in Japan due to the discovery of benzoic acid in the products when analysed. The scientists at FTC examined the ingredients and suspected that naturally-occurring benzoic acid in some fruit could have caused the presence of benzoic acid in the final product. This was further substantiated by the scientific literature. Upon reviewing the FTC report, the Japanese authorities released the products onto the market as safe for eating.

Later that year the Prince Edward Island Preserve Company asked FTC to help them improve their process and quality control procedures and FTC's recommendations were implemented. Since then, the company employs an enhanced approach to their production and quality management.

The Preserve Company produces 120,000 bottles of product every year at their processing facility. The products include barbeque sauces, fruit preserves – both conventional and organic, fruit salsa, fruit sauces and syrups, jelly, pepper jelly, and vinegars. Their products are sold in the company's store in New Glasgow and in stores across Canada as well as through mail order. Some of their products are being exported to Japan as well.

The company is presently in process of making plans for the company's future expansion. They are also working with a dozen local fruit growers to explore new business opportunities. For more information on the products, please contact the Prince Edward Island Preserve Company at 1-800-565-5267 or visit the company online at www.preservecompany.com.

International Potato Processing & Storage Convention 2009

The magazines *Potato Processing International* and *Potato Storage International* are delighted to announce the 2009 convention will take place during June 23-25, 2009 at the superb waterside Delta Prince Edward Hotel in historic Charlottetown on beautiful (and potato-famous) Prince Edward Island, Canada.

The unique convention is structured to bring together two key elements of the potato industry, elements where value-adding and quality are of paramount importance for business success. The emphasis is on international business development and provides delegates with thought-provoking, business-building presentations and a unique atmosphere, conducive to mixing with industry colleagues from around the world.

Maximising both storage life and product quality are more valid than ever and are key factors to adding or maintaining value. Levels of investment in new facilities and new technologies are very high. The programme of presentations will focus on core aspects affecting the industry of today, plus examine in greater detail the possibilities of implementation and usage of modern technologies and applications for enhancing existing production and the development of processing opportunities.



Funding Programs

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

The **Prince Edward Island Food Products Development Fund** will assist Island businesses with projects conducted at the Food Technology Centre. Companies from neighbouring provinces, NB and NS, also have funding support available from their provincial governments for product development activities conducted at FTC. Contact Yaw Dako, Food Technologist (902) 569-7699.

Food Safety Workshops

- [Control of Listeria in Food Processing Plants](#) – courses to be held in Isle Madame, NS on March 11 and Moncton, NB on March 13.
- [Control of Listeria in Food Processing Plants](#), March 17 in St. John's, NL.
- [HACCP \(FSEP\) Workshop](#), 3 days, Moncton, NB, Mar. 23-25 (tentative).

For further information on these, or if you would like a course held in your area, please contact Jim Landrigan at (902) 368-5772 or by email at jklandri@gov.pe.ca

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

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To be added to our newsletter emailing list, please email: ftcnews@gov.pe.ca

To unsubscribe please email ftcnews@gov.pe.ca with "unsubscribe" in the subject line.

More information is available at www.potatoconvention.com.

Natural Products from Marine Sources

By Muhammad Yousaf, PhD, Organic/Purification Chemist

With an estimated 75% of the earth's surface covered by water, research into the chemistry of marine organisms is relatively unexplored and represents a vast resource for new medicines to combat major diseases such as cancer, AIDS and malaria. Traditionally, plants and terrestrial microorganisms have been the focus in the search for new drugs from nature. In recent years, however, marine organisms such as sponges, tunicates, shell-less molluscs and others are increasingly attracting attention due to their structurally unique and pharmacologically-active compounds.

In nature, bioactive metabolites within marine organisms serve as a chemical defense from predation, infections, and overgrowth by other organisms. Marine natural products display an extraordinary chemical and pharmacological scope.

About one-third of all marine natural products have been isolated from sponges, which are also a source for bioactive compounds. Several marine-derived drugs are currently in preclinical or clinical evaluation as anti-inflammatory agents, e.g., manoalide, debromohymenialdisine, and pseudopterosins; and as anticancer agents, e.g., ecteinascidin 743, bryostatin 1, discodermolide, dehydrodidemnin B, didemnin B, Kahalalide F, and isohomohalichondrin B. Cyanovirin-N is undergoing clinical testing as an anti-HIV agent. Manzamines have been tested as anti-malarial agents.

The Food Technology Centre has modern facilities to extract, isolate and purify natural bioactive compounds. Please contact Dr. Muhammad Yousaf, Organic/Purification Chemist, to learn more about our extraction, isolation and purification services: tel: (902) 368-5795; email myousaf@gov.pe.ca.

Featured Equipment: TEKMAH Processor

By Leigh Gao, PhD, BEng, Food Scientist/Engineer



TEKMASH has developed a unique, hydrodynamics-based technology that has applications in fluid foods and other products. "Innovative yet amazingly simple and effective" as described by some customers of the manufacturer, the grinding in the system is caused by the cavitation phenomenon in the high speed circulation process and some of the energy in the flowing fluid is converted into thermal energy to heat the fluid. Thus, this technology is unique in that it grinds and heats the fluid materials at the same time. The temperature of the fluid

may be controlled by the jacketed holding tank and the grinding may be conducted for prolonged time for the particulates in the fluid to meet mesh size requirement. Unit is protected by USA PATENT 7,428,797 and CANADIAN PATENT APPLICATION CA2511744.

The TEKMAH technology has so far found commercial applications in soy processing, pasteurization and other thermal treatment processes, as well as biodiesel. The technology is promising in many processes to enhance productivity and energy efficiency. The process should be validated for application to different materials. TEKMAH has provided a bench scale unit for product and process testing at the Food Technology Centre.

The TEKMAH equipment is on loan from PEI Organic Fruit and Berries Ltd. (the local distributor for TEKMAH Group Ltd., Kherson, Ukraine). The equipment is available at the Food Technology Centre to companies with an interest in evaluating this novel processing technology for various applications.

Interested persons may contact FTC for discussions and possible tests with Ms. Esther Lee, Food Scientist at (902) 368-5238.