FOOD TECHNOLOGY CENTRE

Innovation for the Food & Bioresource Industries

Prince Edward Island, CANADA

NEWSLETTER

Summer 2010

Featured in this issue:

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

Preparations are required prior to receipt of samples, therefore please call 24 hours prior to sample drop off or results will not be received in a timely manner. 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.

Modified Atmospheric Packaging of Food Products

By Yaw Dako, Food Technologist

Modified Atmospheric Packaging (MAP) involves changing the gas composition in packaging to a mixture of the manufacturer's choice. The gas mixture used depends on the food product being packaged and is typically composed of nitrogen, oxygen and/or carbon dioxide. This is used to slow down the growth of microorganisms and the rate of chemical deterioration in various food products. Over the past 20 years, MAP has been used extensively in Europe and North America by various food manufacturers in the meat, seafood, fruits and vegetables and baking industries.

In the seafood industry, using the MAP method, ground fish fillets are packaged using a gas mixture of nitrogen and carbon dioxide to prevent oxidation and to increase shelf-life. For live shellfish, the products are packaged using a gas mixture of high oxygen together with carbon dioxide to inhibit the growth of bacteria in the shellfish. By using the MAP technique, some shellfish processors are able to increase the shelf-life of their products from 7 days to up to 18 days while providing consumers with a more convenient product.

Although MAP tends to increase shelf-life and provide convenient packaging for consumers, there is the need for the products to be handled properly through the various food distribution channels. When MAP products are mishandled, e.g. through temperature abuse or conditions that compromise package integrity, it can lead to bacterial growth in the products which may cause foodborne illness to consumers who eat them.

As new advances are made in the area of Modified Atmospheric Packaging, it is certain to cause an increase in the numbers and type of MAP products available in the market.

For further information on MAP products, please contact Yaw Dako, Food Technologist at (902) 569-7699 or email: yadako@foodtechnologycentre.ca

Maritime Pulse Drying Operating in PEI

Maritime Pulse Drying Inc. is currently performing drying tests for business clients in its newly-completed, state-of-the-art, pulse drying facility in Gaspereaux, Prince Edward Island. The all-stainless steel dryer evaporates water at a rate of 180 kg/hour. Visiting clients can see first-hand the superior flavour, texture, and performance characteristics of MPD-pulse-dried powder ingredients.

The drying unit is capable of manufacturing powders from a wide variety of products that conventional spray drying cannot. For example:

- Concentrated fruit by-products: Used both as nutraceuticals and natural colours. These materials are very difficult to spray dry because of their high fibre composition. Yet they are easily pulse-dried with excellent retention of properties,

Success Stories

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

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.

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and great colour, flavour and texture.
- Oily botanical extracts: The pulse dryer can produce free-flowing powders with low levels of excipients (inactive ingredients), and therefore high concentrations of the desired compound(s).
- Single-stage drying of high-solids by-products from cheese-making, and drying of non-fat milk at concentrations significantly above current methods. Increasing the solids by evaporation prior to drying greatly increases dry powder throughput and significantly reduces per-pound drying costs.
- Dry liquids containing delicate proteins with minimal degradation, thereby offering a low-cost alternative to freeze drying.

Technicians at the Food Technology Centre worked with Maritime Pulse Drying to prepare a blueberry puree for drying. After FTC's technical assistance to obtain suitable flow characteristics, Maritime Pulse Drying successfully pulse-dried the fruit by-product. *This project was funded through the Network Member Agreement that FTC has with National Research Council of Canada's IRAP Program.*

For further information about MPD services, contact Doug Clark, Manager for Engineering Services, Maritime Pulse Drying Inc. Plant: 128 Grahams Pond Road, Gaspereaux, PE C0A 1R0; Office: (902) 962-3297 Mobile: (902) 367-8158. Sales and Marketing Account Manager, Rodolfo Ortega, may be contacted by telephone: (902) 314-4993 (mobile); (902) 367-9158 (home); E-mail: rodolfoortega@eastlink.ca

2010 Food Trends Survey Available

CRFA's Canadian Chef Survey is based on responses from nearly 400 professional chefs. It was conducted by independent market research firm BrandSpark International between January and February, 2010. Chefs were asked to rate the popularity of a variety of menu items and cooking methods, identifying hot trends, up-and-comers, perennial favourites and yesterday's news.

The Top 10 Canadian Menu Trends are:
1. Locally sourced foods
2. Sustainability
3. Organics
4. Artisanal cheeses
5. Simplicity/back to basics
6. Nutritional/healthy cuisine
7. Free-range poultry/pork
8. Small plates/tapas/mezze/dim sum
9. Bite size/mini desserts
10. Superfuits (e.g. acai, goji berry, mangosteen)

HACCP and the Control of *Listeria* Workshops (3 days)

These are comprehensive three-day workshops focussing on the application of HACCP to control *Listeria.*

Scheduled:
- August 3-5, Moncton, NB (Daily 9:00 a.m. to 4:00 p.m.)
- September 28-30, St. John's NL (Daily 9:00 a.m. to 4:00 p.m.)

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 Landrigan at (902) 368-5772 or by email at jklandri@foodtechnologycentre.ca