The Main Ingredient
MALABAR
A Bi-Monthly Newsletter from Malabar Super Spice Co. Ltd. **Sept/Oct 2013**

CHECK OUT OUR WEBSITE! *MALABAR's full catalogue is available online.* **malabarsuperspice.com**

Upcoming Events

October 25th & 26th, 2013
Meat Industry Expo
sponsored by the Ontario Independent Meat Processors
International Centre, Mississauga, Ontario
www.meatindustryexpo.ca

November 12th, 2013
CIFST Suppliers Night Table Top Exhibition
International Centre, Mississauga, Ontario
www.cifst.ca

In The News

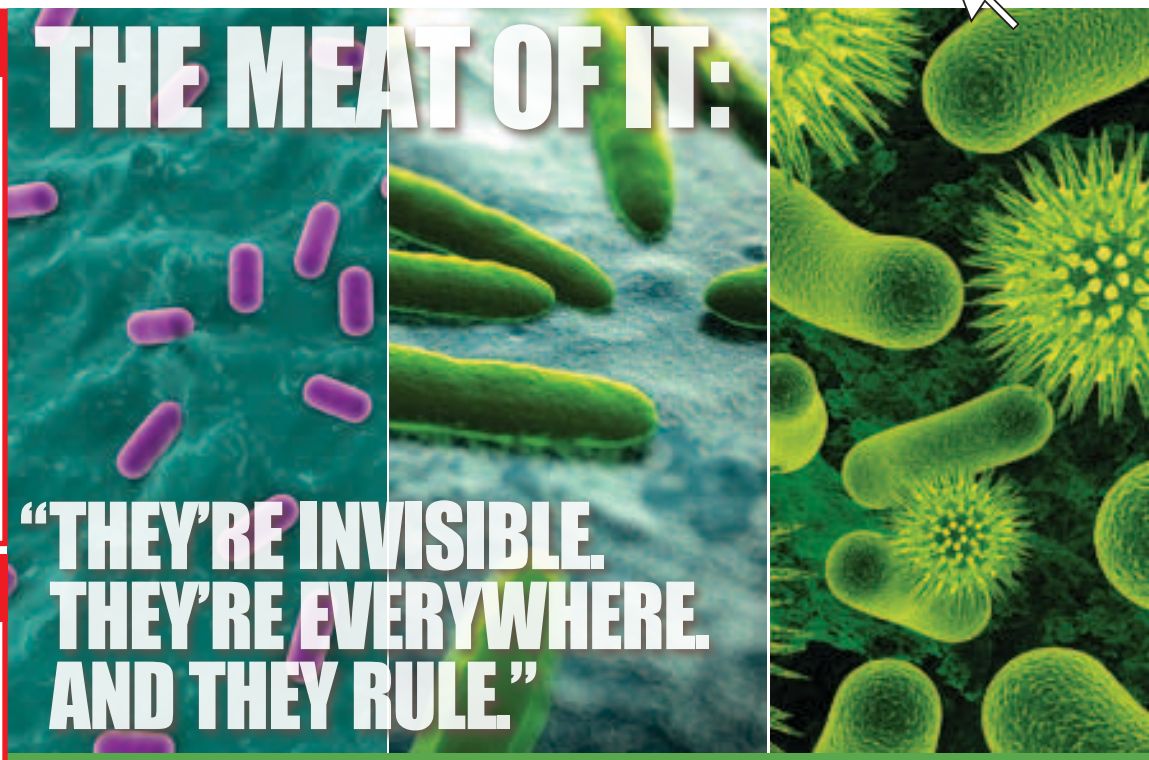
Earlier this year the CFIA announced the creation of 16 sector-specific 'Centres of Expertise'. These are to be located across Canada, and are designed to provide industry and CFIA inspectors with better, more consistent access to information and advice. The center for Agri-Foods will be based in Guelph, ON, and a center for Processed Meat & Poultry in St-Hyacinthe, QC.

To find out more, visit www.inspection.gc.ca

Spice Market Update

American onion prices are on the rise due to dry growing conditions over the past few months in California, along with low levels of water in storage reservoirs. Farmers are given an allotment of water, a figure that is used to calculate the crop planting for onion. Current water restrictions, as well as a lack of rain and spring runoff, have resulted in reduced crop yields and increased prices.

THE MEAT OF IT:



"THEY'RE INVISIBLE. THEY'RE EVERYWHERE. AND THEY RULE."

So says the National Geographic in a recent article on the secret world of microbes (January, 2013). Understanding what microorganisms really are, as well as the key role that they play in maintaining life on earth helps provide us with a more balanced perspective, especially in light of the fear generated by media around' pathogens' and the push to sterilize everything.

What are they?

Microorganisms (microbes) play a very important role in our lives, and they can be found on our skin, in our mouth, and in our stomach and intestines (often referred to as the human 'microbiome'.)

Microbes are microscopic, mostly one-celled organisms that make up more than 60% of the Earth's living matter, and there are somewhere between 2 & 3 billion species. They are found literally everywhere, from our skin, inside and all around us; in the air, in the soil and on nearly all objects.

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The Butcher's Block:
Is it Wood or Plastic?

We've been conditioned to believe that cutting boards used for raw meat should be plastic – in theory they're easier to clean, disinfect & less likely to cross-contaminate other foods. But is this true?

Two graduate students, Dean Cliver and Nese Ak, started out in 1993 to develop means of disinfecting wooden cutting surfaces at home, so they would be 'almost as safe as plastics'. **Their findings, however, surprised them, and the food safety community at large. In short, their initial assumption was potentially all wrong – were plastic cutting boards in fact inherently safer than wood?**

Cliver & Ak found that disease bacteria were not recoverable from wooden cutting boards in a short time after they were applied, while bacteria were easily recoverable from plastic surfaces for long afterwards, and that older, knife-scarred plastic surfaces remained virtually impossible to clean or disinfect, regardless of the process used, especially when food residues like chicken fat were present.

Although bacteria that had disappeared from the wood surfaces were found alive inside the wood for some time they seemed to be unable to escape, or to reproduce, and eventually died off. (Other cutting surfaces available like glass or stainless steel were not investigated, simply because of the destructive effects these surfaces can have on the sharp cutting edges of knives.)

The experiments were conducted with more than 10 species of hardwoods, and 4 plastic polymers, as well as hard rubber. Bacteria tested included E Coli, Salmonella, Campylobacter, Listeria & Staphylococcus.

While Cliver and Ak's experiments were meant to replicate the home kitchen, Cliver believes they are relevant to a processing or commercial environment. **In fact, after replicating his research, both the USDA and the FDA have changed their food prep recommendations to include cutting boards made of maple or other hardwood surfaces.** "Just remember that any good you gain from using wood is completely negated if you don't clean the board, says Cliver. "Don't let food residues dry on the surface," he says. "When I use wood, I clean it promptly."

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Microbial growth is dependent on nutrients, oxygen, water, temperature, pH, light and chemicals, variations of which can increase microbial growth, or slow it down, or even injure or kill the microbes. Nutrients required for microorganisms to grow include carbohydrates, fats, proteins, vitamins and minerals. Different microbes have different oxygen requirements, as some require free oxygen to grow, while others can only grow in the absence of free oxygen. Water is also required, but not pure water. The amount of available water (aw) is important, and most spoilage bacteria require a minimum aw of 0.90.

Microbes are able to grow in a wide range of temperatures, with the best growing temperatures at or near room and body temperature. The ideal pH environment for most bacteria is between 4 and 9. Yeasts and molds are more tolerant in acidic solutions. Ultraviolet light and chemicals such as hydrogen peroxide and chlorine can also affect the growth of microbes.

Microbes that cause disease are called pathogens, however microbes are also necessary for human life. They help us to digest our food (and protect our intestinal walls), guide our immune system and combat deadly germs.

Microbes are one of the hottest topics in food

In the food industry, microbes are used to make bread, cheese, yoghurt and wine. The process of fermentation incorporates different microbial strains that improve taste, texture and smell, and can also reduce the growth of unwanted food microbes (as with the use of lactic acid cultures in the production of dry cured meat products).

Chefs around the world are getting excited about using fermentation to add flavour. Molecular gastronomy (or molecular cuisine) is the new 'science' of cooking – focusing on the physical & chemical transformations that occur with ingredients. It is commonly used to describe a style of cuisine in which chefs explore new culinary possibilities in the kitchen by embracing food science to create innovative new foods.

Molecular gastronomy is now looking to bacteria for new flavours. In fact, last March in a seminar held as part of the London Gastronomy Seminars entitled "Microbial ecology, fermentation and flavour", the guest speakers were a combination of renowned microbiologists (Drs. R. Dutton and Ben Wolfe), and a chef (Chef Dan Felder). (For more information, see www.londongastronomyseminars.com.)

Fermentation may also change how we sweeten our food. The manufacturers of Stevia (the high-intensity sweetener derived from the stevia leaf) have begun testing that involves using the process of fermentation on stevia leaves to provide a more functional and economical sweetener.

With so many advances in science along with the global interest in foods and flavours, it is important that we understand that microbes are important to our health, and the health of our planet around us, and to our continued enjoyment of food!

Did You Know?

- **Some microbes are so small that 25,000 of them placed end-to-end would span less than one inch.**
- **The microbes in your body outnumber your own cells by ten to one.**
- **The microbes in your body can weigh as much as your brain – approximately 3 pounds in an average adult.**
- **Many standard vitamins used in dietary supplements are produced by fermentation, including CoQ10.**

REFERENCES: 1.) Basic Food Microbiology, Rushing, Curtis, Fraser, Green, Pilkington, Ward & Turner, Department of Food Science, North Carolina State University.
2.) The Secret World of Microbes, Nathan Wolfe, National Geographic, January 2013, pg 136-147

STARTER CULTURES

··· microbes at work ···

Starter Cultures are microbial preparations that accelerate the fermentation process through acidification (mainly with the production of lactic acid). Danisco is world renowned for excellence in maturation starter cultures. Malabar is the exclusive distributor of Danisco's starter cultures in Canada. Here are our two most popular meat starter cultures:

TEXEL® SP-Elite

A unique blend of over 4 different bacteria together with yeast for a mild acid taste, enhanced colour and full flavor and aroma. (Available in a 20 g pouch for 200 kg meat batch.)

TEXEL® SP-362

This starter culture allows for very fast texturizing speed, and is great for snack salamis with a balanced, tangy, North European flavour. (Available in a 20 g pouch for 500 kg meat batch.)

We can also help with technical support and advice. To get started, see our website for reference pages on using starter cultures, and a troubleshooting guide for fermented sausages. Look for *www.malabarsuperspice.com/danisco*.

*For more information on any of the above, contact us at **1-888-456-6252**, or email **csr@malabarsuperspice.com.***

OUR PRESIDENT'S Message

*We're pleased to finally announce the winner of the **Great Canadian Meat Contest!***

*Our winner created something completely different. **Mike Lenover from Lenover's Quality Meats & Seafoods Ltd** entered **Uncle Walt Lenover's Chocolate Coated Bacon**, made with Lenover's home-cured #1 Side Bacon, cooked to a crispy finish, then coated with Régine's Finest Dark Chocolate. Mike debuted the first production of Lenover's chocolate bacon during the preparations for his eldest daughter's wedding, and it's been a hit ever since! (What's the greatest thing about it? Well, it's sweet AND salty, and of course, it tastes like bacon!)*

*Our winner will receive a copy of the **River Cottage Meat Book**, one of my favourite reads! **Congratulations & here's to Canadian meat dishes!***

All the best, from Malabar

Doris Valade
President
Malabar Super Spice Co. Ltd.

Did You Know?

A new social networking site for the meat industry was launched in May of this year - SocialMeatia.com - as a niche social networking site for farmers, organizations, restaurants, chefs, butchers and consumers to connect and celebrate everything meat.

SocialMeatia

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Look for our next edition in Nov/Dec 2013.

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For more information on any of the subjects covered in Malabar's newsletter, or to suggest topics you'd like to see covered in future editions, please contact Sara Alexander at marketing@malabarsuperspice.com.

HACCP ACCREDITATION

Malabar is certified to provide Halal products, and is proud to be HACCP accredited.

HUGHES Racing

Malabar Super Spice is a proud supporter of Jeremy Hughes and Team Hughes Racing. www.10hughesracing.com