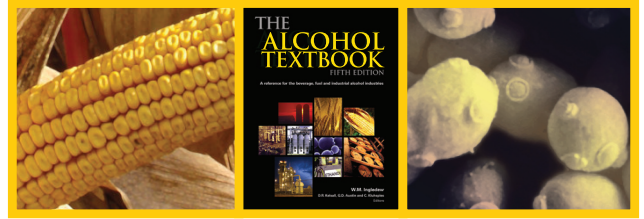


# *The Alcohol School 2010*



## *Agenda*

PRELIMINARY

## Montréal

InterContinental Montréal  
September 12-17, 2010



ETHANOL  
TECHNOLOGY  
INSTITUTE

6120 West Douglas Avenue  
Milwaukee, WI 53218 USA  
800 583-6484 | 414 393-0410  
Fax 414 358-8012

## *Ethanol Technology Institute Staff*

***W. M. (Mike) Ingledeu, Ph.D.***

Scientific Director  
mingledew@lallemand.com

***Nadya Antoniadès***

Administrative Director  
nantoniades@lallemand.com

***Liz Ward, Ph.D.***

Registration Coordinator  
lward@lallemand.com

**Ethanol Technology Institute**

6120 West Douglas Avenue  
Milwaukee, WI 53218 USA  
800 583-6484 | 414 393-0410  
Fax 414 358-8012  
institute@ethanoltech.com  
www.ethanoltech.com

## *Hotel Information*

**InterContinental Montréal**

360 rue St-Antoine Ouest  
Montréal, Québec H2Y 3X4 Canada  
514 987-9900  
Fax 514 847-8730

**Hotel Reservation Booking Link:**

<https://resweb.passkey.com/go/Alcoholschool2010>

## *Facility Visits*

***Préfontaine Yeast Plant  
Lallemand Inc.***

1620 rue Préfontaine  
Montréal, Québec H1W 2N8  
Canada  
514 522-2133  
www.lallemand.com

***Diageo Global Supply  
Valleyfield***

1 rue Salaberry  
Valleyfield, Québec J6T 2G9  
Canada  
450 373-3230  
www.diageo.com

***Biotechnology Research  
Institute***

**National Research  
Council of Canada**  
6100 Royal Mount  
Montréal, Québec H4P 2R2  
Canada  
514 496-6100  
www.irb-bri.cnrc-nrc.gc.ca

***Éthanol GreenField Plant  
GreenField Ethanol***

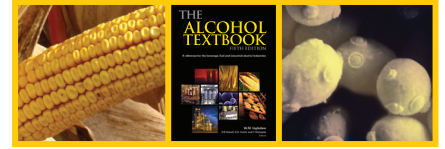
3300 boulevard Marie-Victorin  
Varenes, Québec J3X 1P7  
Canada  
450 652-1800  
www.greenfieldethanol.com

## *Montréal Information*

**Greater Montréal Convention and Tourism Bureau**

[www.tourism-montreal.org](http://www.tourism-montreal.org)

# The Alcohol School 2010



## Sunday

SEPTEMBER 12, 2010

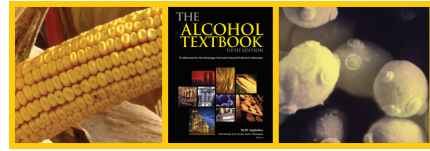
5:00 pm – 8:00 pm

REGISTRATION AND WELCOME

Chez Plume  
Bistro

*Once you've checked into the hotel, please come and find the Alcohol School staff at the Chez Plume Bistro (on the reception desk level across the bridge) anytime after 5 pm. You will have a chance to register for the school, have your picture taken (to later share with your classmates for networking purposes), put your school materials back in your room, and then join us for hors d'oeuvres and an open bar to say hello to old and new friends and get the week off to a good start.*

# The Alcohol School 2010



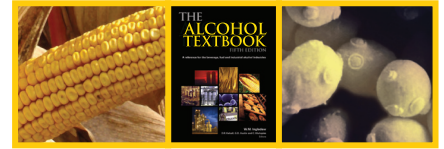
## Monday

fuel alcohol  
session

SEPTEMBER 13, 2010

<b>7:30 am – 8:30 am</b>	REGISTRATION	SAINT JACQUES ROOM
<b>8:30 am – 8:50 am</b>	Welcome <i>Bill Nankervis, Lallemand Ethanol Technology</i>	
<b>8:50 am – 9:05 am</b>	Introduction to the Agenda <i>Mike Ingledew, Ethanol Technology Institute</i>	
<b>9:10 am – 9:40 am</b>	The Global Fuel Alcohol Industry <i>Craig Pilgrim, Lallemand Ethanol Technology</i>	SAINT JACQUES ROOM
<b>9:40 am – 10:35 am</b>	Corn Grain for Ethanol Production <i>Doug Haefele, Pioneer Hi-Bred International Ltd.</i>	
<b>10:35 am – 10:55 am</b>	COFFEE	SAINT JACQUES ROOM
<b>10:55 am – 11:50 am</b>	Grain Receiving, Storage and Milling <i>Robert Piggot, Lallemand Ethanol Technology</i>	
<b>11:55 am – 12:50 pm</b>	Grain Mashing <i>Garth Whiddon, Lallemand Ethanol Technology</i>	SAINT JACQUES ROOM
<b>12:50 pm – 1:55 pm</b>	LUNCH	SAINT JACQUES ROOM
<b>1:55 pm – 2:50 pm</b>	Feedstocks for Fuel Alcohol Production <i>Dale Monceaux, AdvanceBio LLC</i>	
<b>2:55 pm – 3:50 pm</b>	Sugar Beets, Cane Juice and Molasses for Fermentation <i>Robert Piggot, Lallemand Ethanol Technology</i>	
<b>3:50 pm – 4:10 pm</b>	COFFEE	
<b>4:10 pm – 5:05 pm</b>	Wet Milling of Corn and Mash Production <i>Scott Kohl, ICM Inc.</i>	
<b>5:05 pm – 6:00 pm</b>	Small Grains: The Impact of Mash Composition on Milling, Cooking, Liquefaction, Fermentation and Downstream Processes <i>Dale Monceaux, AdvanceBio LLC</i>	

# The Alcohol School 2010



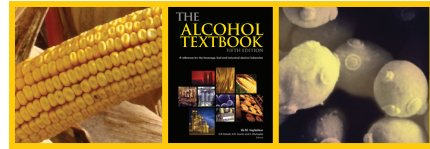
## Monday

## beverage alcohol session

SEPTEMBER 13, 2010

<b>7:30 am – 8:30 am</b>	REGISTRATION	SAINT JACQUES ROOM
<b>8:30 am – 8:50 am</b>	Welcome <i>Bill Nankervis, Lallemand Ethanol Technology</i>	
<b>8:50 am – 9:05 am</b>	Introduction to the Agenda <i>Mike Ingledew, Ethanol Technology Institute</i>	
<b>9:10 am – 9:40 am</b>	The Global Beverage Spirits Industry <i>Steve Wright, Lallemand Ethanol Technology &amp; Spiritech</i>	SAINT PIERRE ROOM
<b>9:40 am – 10:35 am</b>	Raw Materials in Beverage Alcohol Processing <i>Steve Wright, Lallemand Ethanol Technology &amp; Spiritech</i>	
<b>10:35 am – 10:55 am</b>	COFFEE	SAINT JACQUES ROOM
<b>10:55 am – 11:50 am</b>	Grain Receiving, Storage and Milling <i>Robert Piggot, Lallemand Ethanol Technology</i>	
<b>11:55 am – 12:50 pm</b>	Mash Preparation and Fermentation in the Beverage Distilling Industry <i>Steve Wright, Lallemand Ethanol Technology &amp; Spiritech</i>	SAINT PIERRE ROOM
<b>12:50 pm – 1:55 pm</b>	LUNCH	SAINT PIERRE ROOM
<b>1:55 pm – 2:50 pm</b>	Beverage Alcohol Distillation <i>Robert Piggot, Lallemand Ethanol Technology</i>	
<b>2:55 pm – 3:50 pm</b>	Maturation and Blending: The Master Blender's Challenge <i>Jonathan Miles, Anchor Yeast</i>	
<b>3:50 pm – 4:10 pm</b>	COFFEE	
<b>4:10 pm – 5:05 pm</b>	Spirits : A Case Study – Bourbon <i>Kevin Smith, Brown-Forman Corporation</i>	
<b>5:05 pm – 6:00 pm</b>	Spirits: A Case Study – Cachaça <i>Seymour Vargas and Steve Wright, Lallemand Ethanol Technology</i>	

# The Alcohol School 2010



## Tuesday

combined  
session

SEPTEMBER 14, 2010

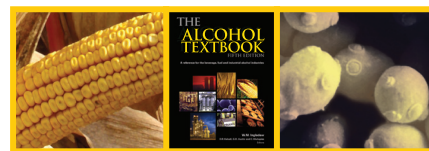
<b>8:30 am – 9:25 am</b>	Enzymes: Introduction and Usage for Starch Hydrolysis <i>Vivek Sharma, Genencor, A Danisco Company</i>
<b>9:25 am – 10:20 am</b>	Enzymes as Process Aids: Viscosity, Proteins, Phytate & Cellulose <i>Seth Schroeder, Novozymes North America</i>
<b>10:20 am – 10:40 am</b>	COFFEE
<b>10:40 am – 11:35 am</b>	Yeast Production: Strains and Formulations for Fuel and Beverage Alcohol Producers <i>Bill Nankervis, Lallemand Ethanol Technology</i>
<b>11:35 am – 12:30 pm</b>	Yeast: Inoculation, Fermentation and Introductory Nutrition <i>Mike Ingledew, Ethanol Technology Institute</i>
<b>12:30 pm – 1:30 pm</b>	LUNCH
<b>1:30 pm – 2:25 pm</b>	Batch and Continuous Fermentation, and Yeast Propagation <i>Chris Richards, Lallemand Ethanol Technology</i>
<b>2:25 pm – 3:20 pm</b>	Bacterial Contamination and Control <i>Glen Austin, Lallemand Ethanol Technology</i>
<b>3:20 pm – 3:40 pm</b>	COFFEE
<b>3:40 pm – 4:35 pm</b>	Yeast Nutrition for Fermentation Performance <i>Mike Ingledew, Ethanol Technology Institute</i>
<b>4:35 pm – 5:30 pm</b>	Energy, Water and Mass Balance <i>Scott Kohl, ICM Inc.</i>
<b>7:00 pm – 10:30 pm</b>	Wine, Beer and Spirits Tasting <i>Complimentary food provided</i>

SAINT  
JACQUES  
ROOM

SAINT  
JACQUES  
ROOM

Les Voûtes  
(Caves under hotel)

# The Alcohol School 2010



## Wednesday

combined  
session

SEPTEMBER 15, 2010

<b>8:00 am</b>	BUSES FOR ALL TO BIOTECHNOLOGY RESEARCH INST.	BRI
<b>9:00 am – 9:50 am</b>	Challenges of Key Analytical Methods Used for Process Monitoring <i>Joseph Kalkwarf and Muriel de la Pinsonnais, Lallemand Ethanol Technology</i>	
<b>9:50 am – 10:40 am</b>	Fermentor Design <i>Glen Austin, Lallemand Ethanol Technology</i>	
<b>10:40 am – 10:55 am</b>	COFFEE	
<b>11:00 am – 12:30 pm</b>	LAB VISITS	
<b>12:30 pm – 1:30 pm</b>	LUNCH	
<b>1:35 pm – 3:10 pm</b>	LAB VISITS	BRI
<b>3:10 pm – 3:30 pm</b>	COFFEE	
<b>3:30 pm – 4:20 pm</b>	Stress Management and Control of Yeast <i>Mike Ingledew, Ethanol Technology Institute</i>	
<b>4:20 pm – 5:10 pm</b>	Cleaning and Sanitation in a Distillery <i>Chris Richards, Lallemand Ethanol Technology</i>	
<b>5:10 pm</b>	BUSES BACK TO HOTEL	

### LAB VISITS (Order of rotation to vary)

**Lab Visit I**  
*Lallemand Ethanol Technology Lab*

**Tour of Yeast Scale-up and Process Control Laboratory**  
*Demonstration of whole-grain corn mash lab-scale fermentation*

**Lab Visit II**  
*Culture Collection Lab*

**Tour of Culture Collection/Microbiology Laboratory**  
*Demonstration of yeast counting by microscope and plating*

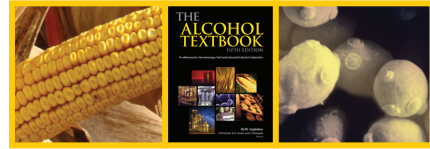
**Lab Visit III**  
*Molecular Biology Lab*

**Tour of Molecular Biology Laboratory**  
*Demonstration of yeast and bacterial identification*

**Lab Visit IV**  
*Probiotic Lab*

**Tour of Animal Nutrition and Institut Rosell Probiotic Bacteria Laboratories**  
*Discussions on probiotic bacteria and coproduct nutritional value*

# The Alcohol School 2010



## Thursday

### fuel alcohol session

SEPTEMBER 16, 2010

<b>8:30 am – 9:25 am</b>	Fractionation Technologies for Grain-to-Ethanol Processing <i>Vijay Singh, University of Illinois</i>
<b>9:25 am – 10:45 am</b>	Distillation and Molecular Sieves: A Practical Viewpoint <i>Phil Madson, KATZEN International</i>
<b>10:45 am – 11:05 am</b>	COFFEE
<b>11:05 am – 12:00 pm</b>	Troubleshooting – A Practical Approach and Exercise <i>Chris Richards, Lallemand Ethanol Technology</i>
<b>12:00 pm – 1:00 pm</b>	Roundtable – Fuel Alcohol <i>Moderator: Craig Pilgrim, Lallemand Ethanol Technology</i>
<b>1:00 pm – 2:00 pm</b>	LUNCH
<b>2:00 pm – 5:30 pm</b>	Plant Tours to Ethanol GreenField, <u>OR</u> Diageo Global Supply, <u>OR</u> Lallemand's Prefontaine Yeast Production Plant

SAINT  
JACQUES  
ROOM

#### **OPTION #1 Ethanol GreenField, Varennes, Québec**

Ethanol GreenField (formerly Commercial Alcohols) is an ICM-designed plant, completed in early 2007, that produces fuel-grade ethanol, carbon dioxide, and distillers' dried grains. Initial capacity is 120 million liters (32M US gallons) of fuel-grade ethanol per year, made from 12 million bushels of Québec corn. Ethanol GreenField has two further plants under construction in Johnstown and Hensall, Ontario, with start-up dates in 2008 and 2009.

#### **OPTION #2: Diageo Global Supply, Salaberry-de-Valleyfield, Québec**

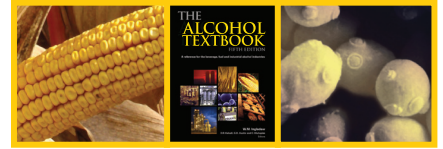
Originally a biscuit-making factory, and then a brewery, the site became a distillery in 1939 producing alcohol for military purposes. In 1945, Canadian Schenley Distilleries Ltd bought the property and launched its first Canadian Whisky in 1948. During the fifties, numerous new products saw the light of day. The sixties saw the construction of additional warehouses for aging and the addition of a grain dryer. On October 22, 1969, the one-millionth barrel was produced, followed by the second millionth in 1986.

Today, the plant is owned by Diageo, the largest spirits manufacturer in the world, and produces world-renowned brands such as Smirnoff, Captain Morgan rums, and VO Canadian whisky. The site offers a fully integrated spirit service from sourcing to expedition all around the world and produces over 3 million cases of beverage alcohol annually.

#### **OPTION #3 Lallemand's Préfontaine Yeast Plant, Montréal, Québec**

Lallemand was founded in Montréal at the end of the 19th century by a young immigrant from the Alsace region of France, Fred "Lallemand." The plant on Préfontaine Street was built in 1915, with production of baker's yeast starting there in 1923. Roland Chagnon acquired the business in 1952 and set it on a path of expansion. The Chagnon family remains the current owner. Today, the state-of-the-art plant produces a range of liquid, cake, and dry yeasts for the fuel ethanol, beverage alcohol (winery, brewing, distilled beverage), and baking industries. Lallemand, a major supplier of yeast, yeast foods and bacterial inoculants worldwide is the parent company for Lallemand Ethanol Technology and Ethanol Technology Institute.

# The Alcohol School 2010



## Thursday

## beverage alcohol session

SEPTEMBER 16, 2010

8:30 am – 9:25 am	Quality Control in the Potable Distilling Industry <i>Steve Wright, Lallemand Ethanol Technology &amp; Spiritech</i>
9:25 am – 10:45 am	Beverage Industry Roundtable <i>Moderator: Steve Wright, Lallemand Ethanol Technology &amp; Spiritech</i>
10:45 am – 11:05 am	COFFEE
11:05 am – 12:00 pm	Whisk(e)ys around the World <i>Jonathan Miles, Anchor Yeast</i>
12:00 pm – 1:00 pm	Whisky Yeasting Methods: Balancing Best Practices and Stubborn Tradition <i>Kevin Smith, Brown-Forman Corporation</i>
1:00 pm – 2:00 pm	LUNCH
2:00 pm – 5:30 pm	Plant Tours to Ethanol GreenField, <u>OR</u> Diageo Global Supply, <u>OR</u> Lallemand's Préfontaine Yeast Production Plant

SAINT  
PIERRE  
ROOM

### **OPTION #1 Ethanol GreenField, Varennes, Québec**

Ethanol GreenField (formerly Commercial Alcohols) is an ICM-designed plant, completed in early 2007, that produces fuel-grade ethanol, carbon dioxide, and distillers' dried grains. Initial capacity is 120 million liters (32M US gallons) of fuel-grade ethanol per year, made from 12 million bushels of Québec corn. Ethanol GreenField has two further plants under construction in Johnstown and Hensall, Ontario, with start-up dates in 2008 and 2009.

### **OPTION #2: Diageo Global Supply, Salaberry-de-Valleyfield, Québec**

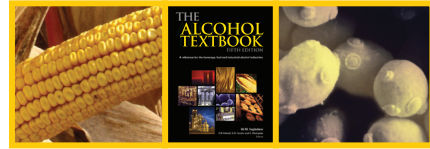
Originally a biscuit-making factory, and then a brewery, the site became a distillery in 1939 producing alcohol for military purposes. In 1945, Canadian Schenley Distilleries Ltd bought the property and launched its first Canadian Whisky in 1948. During the fifties, numerous new products saw the light of day. The sixties saw the construction of additional warehouses for aging and the addition of a grain dryer. On October 22, 1969, the one-millionth barrel was produced, followed by the second millionth in 1986.

Today, the plant is owned by Diageo, the largest spirits manufacturer in the world, and produces world-renowned brands such as Smirnoff, Captain Morgan rums, and VO Canadian whisky. The site offers a fully integrated spirit service from sourcing to expedition all around the world and produces over 3 million cases of beverage alcohol annually.

### **OPTION #3 Lallemand's Préfontaine Yeast Plant, Montréal, Québec**

Lallemand was founded in Montréal at the end of the 19th century by a young immigrant from the Alsace region of France, Fred "Lallemand." The plant on Préfontaine Street was built in 1915, with production of baker's yeast starting there in 1923. Roland Chagnon acquired the business in 1952 and set it on a path of expansion. The Chagnon family remains the current owner. Today, the state-of-the-art plant produces a range of liquid, cake, and dry yeasts for the fuel ethanol, beverage alcohol (winery, brewing, distilled beverage), and baking industries. Lallemand, a major supplier of yeast, yeast foods and bacterial inoculants worldwide is the parent company for Lallemand Ethanol Technology and Ethanol Technology Institute.

# The Alcohol School 2010



## Friday

combined  
session

SEPTEMBER 17, 2010

<b>8:30 am – 9:25 am</b>	Dryhouse Technologies in Distilleries <i>Dale Monceaux, AdvanceBio LLC</i>
<b>9:25 am – 10:20 am</b>	A Nutritionist's View of Distillers Grains <i>Mark Corrigan, Lallemand Animal Nutrition NA</i>
<b>10:20 am – 10:40 am</b>	COFFEE
<b>10:40 am – 11:35 am</b>	2nd Generation Biofuels: Ethanol from Lignocellulose <i>Frederic D'Aoust, Lallemand Ethanol Technology</i>
<b>11:35 am – 12:30 pm</b>	Technical Opportunities in the Industry – Where are We Going? <i>Phil Madson, KATZEN International</i>
<b>12:35 pm – 12:50 pm</b>	Course Wrap-up and Presentation of Certificates

SAINT  
JACQUES  
ROOM