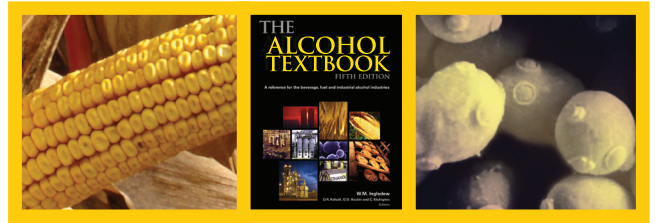


# *The Alcohol School 2013*



## *Agenda*

## Montréal

InterContinental Montréal

September 15-20, 2013



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

## *Ethanol Technology Institute Staff*

***Graeme Walker, Ph. D***

Scientific Director  
gwalker@lallemand.com

***Nadya Antoniadès***

Administrative Director  
nantoniades@lallemand.com

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

Registration Coordinator  
lward@lallemand.com

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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  
<https://resweb.passkey.com/go/AlcoholSchool2013>

Hotel Reservation By Phone:  
888-233-9527

## *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***

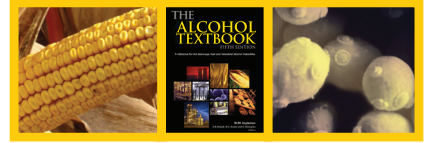
3300 boulevard Marie-Victorin  
Varenes, Québec J3X 1P7  
Canada  
450 652-1800  
www.greenfieldethanol.com

## *Montréal Information*

**Greater Montréal Convention and Tourism Bureau**

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

# The Alcohol School 2013



## Sunday

SEPTEMBER 15, 2013

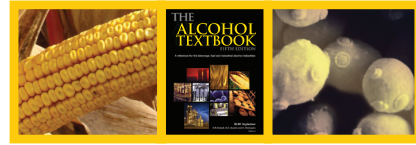
5:00 pm – 8:00 pm

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 2013



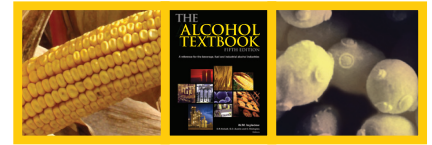
## Monday

fuel alcohol  
session

SEPTEMBER 16, 2013

7:30 am – 8:30 am	REGISTRATION	SARAH BERNHARDT ROOM
8:30 am – 8:45 am	Welcome <i>Kevin Dailey, Lallemand Biofuels &amp; Distilled Spirits</i>	
8:45 am – 9:00 am	Introduction to the Agenda <i>Graeme Walker, Ethanol Technology Institute</i>	
9:00 am – 9:30 am	The Global Fuel Alcohol Industry <i>Craig Pilgrim, Lallemand Biofuels &amp; Distilled Spirits</i>	
9:30 am – 10:00 am	The Global Distilled Spirits Industry <i>Steve Wright, Lallemand Biofuels &amp; Distilled Spirits and Spiritech</i>	
10:00 am – 10:30 am	The Impact of Fuel Alcohol Production on Beverage Alcohol <i>Charles Abbas, ADM</i>	
10:30 am – 11:00 am	COFFEE	
11:00 am – 11:50 am	Grain Receiving, Storage and Milling <i>Robert Piggot, Lallemand Biofuels &amp; Distilled Spirits</i>	
11:50 am – 12:30 pm	Enzymes as Processing Aids in Alcohol Production <i>Speaker to be confirmed</i>	
12:30 pm – 1:30 pm	LUNCH - ALL - CHEZ PLUME Bistro and Vieux-Montreal	LUNCH
1:30 pm – 2:20 pm	Feedstocks for Fuel Alcohol Production <i>Dale Monceaux, AdvanceBio LLC</i>	SARAH BERNHARDT ROOM
2:20 pm – 3:10 pm	Corn Grain for Ethanol Production <i>Doug Haefele, Pioneer Hi-Bred International Ltd.</i>	
3:10 pm – 3:40 pm	COFFEE	
3:40 pm – 4:30 pm	Grain Mashing for Fuel Alcohol <i>Speaker to be confirmed</i>	
4:30 pm – 5:20 pm	Wet Milling and Mashing <i>Scott Kohl, ICM Inc.</i>	

# The Alcohol School 2013



## Monday

## beverage alcohol session

SEPTEMBER 16, 2013

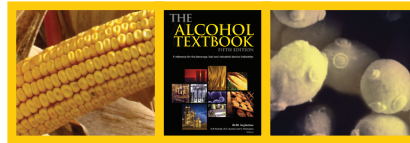
<b>7:30 am – 8:30 am</b>	REGISTRATION
<b>8:30 am – 8:45 am</b>	Welcome <i>Kevin Dailey, Lallemand Biofuels &amp; Distilled Spirits</i>
<b>8:45 am – 9:00 am</b>	Introduction to the Agenda <i>Graeme Walker, Ethanol Technology Institute</i>
<b>9:00 am – 9:30 am</b>	The Global Fuel Alcohol Industry <i>Craig Pilgrim, Lallemand Biofuels &amp; Distilled Spirits</i>
<b>9:30 am – 10:00 am</b>	The Global Distilled Spirits Industry <i>Steve Wright, Lallemand Biofuels &amp; Distilled Spirits and Spiritech</i>
<b>10:00 am – 10:30 am</b>	The Impact of Fuel Alcohol Production on Beverage Alcohol <i>Charles Abbas, ADM.</i>
<b>10:30 am – 11:00 am</b>	COFFEE
<b>11:00 am – 11:50 am</b>	Grain Receiving, Storage and Milling <i>Robert Piggot, Lallemand Biofuels &amp; Distilled Spirits</i>
<b>11:50 am – 12:30 pm</b>	Enzymes as Processing Aids in Alcohol Production <i>Speaker to be confirmed</i>
<b>12:30 pm – 1:30 pm</b>	LUNCH - ALL - CHEZ PLUME Bistro and Vieux-Montreal
<b>1:30 pm – 2:20 pm</b>	Raw Materials for Beverage Alcohol Production <i>Douglas Murray, Diageo</i>
<b>2:20 pm – 3:10 pm</b>	Mash Preparation in the Beverage Distilling Industry <i>Steve Wright, Lallemand Biofuels &amp; Distilled Spirits and Spiritech</i>
<b>3:10 pm – 3:40 pm</b>	COFFEE
<b>3:40 pm – 4:30 pm</b>	Rum Production <i>Robert Piggot, Lallemand Biofuels &amp; Distilled Spirits</i>
<b>4:30 pm – 5:20 pm</b>	Canadian Whisky Production & Aspects of Continuous Improvement <i>Martin Laberge, Diageo Global Supply</i>

SARAH  
BERNHARDT  
ROOM

LUNCH

VIEUX-  
MONTREAL  
ROOM

# The Alcohol School 2013



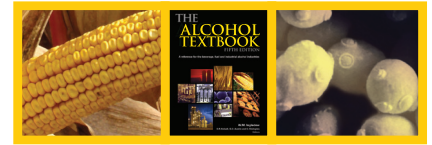
## Tuesday

combined  
session

SEPTEMBER 17, 2013

8:30 am – 9:20 am	Sugar Feedstocks for Fuel and Beverage Alcohol <i>Henrique Amorim, Fermentec Brazil</i>	SARAH BERNHARDT ROOM
9:20 am – 10:10 am	New Technologies for Alcohol Production <i>Scott Kohl, ICM Inc.</i>	
10:10 am – 10:40 am	COFFEE	
10:40 am – 11:20 am	Physiology of Ethanol-Producing Yeasts <i>Graeme Walker, Ethanol Technology Institute</i>	
11:20 am – 12:00 pm	Yeast Nutrition for Fermentation Performance <i>Mike Ingledew, Professor Emeritus, University of Saskatchewan</i>	
12:00 pm – 12:40 pm	New Yeasts for Fuel and Beverage Alcohol <i>Kevin Wenger, Mascoma</i>	LUNCH
12:40 pm – 1:40 pm	LUNCH - ALL - CHEZ PLUME Bistro and Vieux-Montreal	
1:40 pm – 2:30 pm	Yeast Production for Fuel and Beverage Alcohol <i>Forbes Wardrop, Lallemand Inc.</i>	SARAH BERNHARDT ROOM
2:30 pm – 3:20 pm	Yeast: Propagation for Fuel and Beverage Alcohol <i>Chris Richards, Lallemand Biofuels &amp; Distilled Spirits</i>	
3:20 pm – 3:50 pm	COFFEE	
3:50 pm – 4:40 pm	Distillation: Theory <i>Phil Madson, KATZEN International Inc.</i>	
4:40 pm – 5:30 pm	Distillation: Practice <i>Tara Vigil, KATZEN International Inc.</i>	

# The Alcohol School 2013



## Wednesday

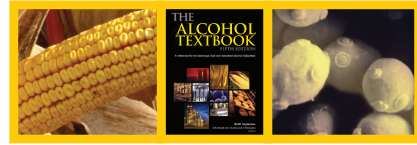
combined  
session

BIOTECHNOLOGY RESEARCH INSTITUTE

SEPTEMBER 18, 2013

8:00 am	BUSES FOR ALL TO BIOTECHNOLOGY RESEARCH INSTITUTE	BRI
8:50 am – 9:00 am	Welcome to BRI <i>Frederic D'Aoust, Lallemand Ethanol Technology</i>	
9:00 am – 9:50 am	Contamination & Control <i>Graeme Walker, Ethanol Technology Institute</i>	
9:50 am – 10:40 am	Cleaning & Sanitation in a Distillery <i>Chris Richards, Lallemand Biofuels &amp; Distilled Spirits</i>	
10:40 am – 10:55 am	COFFEE	
11:00 am – 12:00 pm	LAB VISITS	
12:00 pm – 12:30 pm	Antibiotics & Probiotics <i>Speaker to be confirmed, Lallemand Health Solutions</i>	LUNCH
12:30 pm – 1:30 pm	LUNCH	
1:35 pm – 2:40 pm	LAB VISITS	BRI
2:40 pm – 3:10 pm	Fluorescence Microscopy Demonstration <i>Joseph Kalkwarf, Lallemand Biofuels &amp; Distilled Spirits</i>	
3:10 pm – 3:30 pm	COFFEE	
3:30 pm – 4:20 pm	Fermentation Management and Control <i>Mike Ingledew, Professor Emeritus, University of Saskatchewan</i>	
4:20 pm – 5:00 pm	Key Analytical Methods for Process Monitoring <i>Joseph Kalkwarf, Lallemand Biofuels &amp; Distilled Spirits</i>	
5:00 pm	BUSES BACK TO HOTEL	
7:00 pm – 10:30 pm	Wine, Beer and Spirits Tasting - <i>Complimentary food provided</i>	Les Voûtes (Caves under hotel)
<b>LAB VISITS</b> (Order of rotation to vary)		
<b>Lab Visit I</b> <i>Technology Lab, LBDS</i>	<b>Tour of Fuel Ethanol and Distilled Beverage Laboratory</b> <i>Demonstration of whole-grain corn mash fermentation</i>	
<b>Lab Visit II</b> <i>Process Lab</i>	<b>Tour of Yeast Scale-up and Process Control Laboratory</b> <i>Demonstration of yeast production and scale-up strategies</i>	
<b>Lab Visit III</b> <i>Microbiology Lab</i>	<b>Tour of Culture Collection/Microbiology Laboratory</b> <i>Demonstration of yeast counting by microscope and plating</i>	
<b>Lab Visit IV</b> <i>Genetics Lab</i>	<b>Tour of Genetic Identification Laboratory</b> <i>Demonstration of yeast and bacteria identification</i>	
<b>Lab Visit V</b> <i>Probiotics Lab</i>	<b>Tour of Animal Nutrition and Institut Rosell Probiotic Bacteria Laboratories</b> <i>Discussions on probiotics and coproduct nutritional value</i>	
<b>Lab Visit VI</b> <i>Strain Development Lab</i>	<b>Tour of Molecular Biology Strain Improvement Laboratory</b> <i>Demonstration of yeast mutagenesis and screening techniques</i>	

# The Alcohol School 2013



## Thursday fuel alcohol session SEPTEMBER 19, 2013

<b>8:30 am – 9:20 am</b>	Anaerobic Digestion of Distillery Residues <i>Luis Ortega, Lallemand Biofuels &amp; Distilled Spirits</i>
<b>9:20 am – 10:10 am</b>	Dryhouse Technologies in Distilleries (I) <i>Dale Monceaux, AdvanceBio LLC.</i>
<b>10:10 am – 10:40 am</b>	COFFEE
<b>10:40 am – 11:30 am</b>	Dryhouse Techonologies in Distilleries (II) <i>Dale Monceaux, AdvanceBio LLC.</i>
<b>11:30 am – 12:20 pm</b>	Energy, Mass and Water Balance <i>Scott Kohl, ICM Inc.</i>
<b>12:20 pm – 1:30 pm</b>	LUNCH
<b>1:30 pm – 5:00 pm</b>	PLANT TOURS to Ethanol GreenField, OR Diageo Global Supply OR Lallemand's Prefontaine Yeast Plant

SARAH  
BERNHARDT  
ROOM

LUNCH

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

GreenField Ethanol of Quebec Inc. is an ICM-designed plant, completed in early 2007, that produces fuel-grade ethanol, carbon dioxide, distillers' dried grains, and MWDGS. Current capacity is 160 million liters (around 42 million US gallons) of fuel-grade ethanol per year, made from 15 million bushels of Québec corn. In 2008, GreenField Ethanol completed a second ICM-designed plant in Johnstown, Ontario, that produces 200 million liters of fuel-grade ethanol.

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

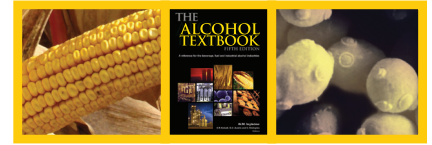
The original building dates from 1909 and became a distillery in 1938 producing alcohol for military purposes. It really became a whisky distillery in 1945 with the first Chiqui, Golden Wedding, being produced. During the fifties, new products such as Schenley OFC, Ron Carioca Rum, and Troika Premium Vodka came online. The sixties saw the 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 continues to produce world-renowned brands such as Smirnoff vodka, Captain Morgan rums, Gordon's London Dry gin, and VO Canadian whisky. In 2009 the plant was acquired by Diageo, the largest spirits manufacturer in the world, and produces 3.4 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 plant produces a range of liquid, cake, and dry yeasts for the fuel ethanol, beverage alcohol, and baking industries.



# The Alcohol School 2013



## Thursday

## beverage alcohol session

SEPTEMBER 19, 2013

**8:30 am – 9:20 am** Beverage Alcohol Distillation Batch & Continuous Processes  
*Robert Piggot, Lallemand Biofuels & Distilled Spirits*

**9:20 am – 10:10 am** Flavour Distillation for Whisky  
*Douglas Murray, Diageo*

**10:10 am – 10:40 am** COFFEE

**10:40 am – 11:30 am** Whisky Yeasting Methods: Balancing Best Practices and Stubborn Tradition  
*Kevin Smith, Brown-Forman Corporation*

**11:30 am – 12:20 pm** Analytical Methods for Distilled Spirits  
*Robert Fotheringham, Pernod-Ricard*

**12:20 pm – 1:30 pm** LUNCH

**1:30 pm – 5:00 pm** PLANT TOURS to Ethanol GreenField, OR Diageo Global Supply OR Lallemand's Prefontaine Yeast Plant

VIEUX-MONTREAL ROOM

LUNCH

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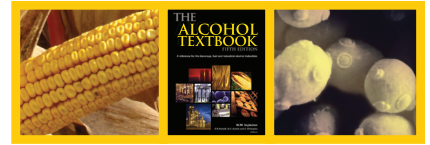
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# The Alcohol School 2013



Friday

combined  
session

SEPTEMBER 20 2013

<b>8:30 am – 9:10 am</b>	A Nutritionist's View of Distillers Grains <i>Speaker to be confirmed</i>
<b>9:10 am – 9:50 am</b>	2nd Generation Biofuels: Ethanol from Lignocellulose <i>Frederic D'Aoust, Lallemand Biofuels &amp; Distilled Spirits</i>
<b>9:50 am – 10:30 am</b>	Cellulosic Feedstocks & Cellulases <i>Speaker to be confirmed</i>
<b>10:30 am – 11:00 am</b>	COFFEE
<b>11:00 am – 11:40 am</b>	Current Challenges in Alcohol Productions <i>Vijay Singh, University of Illinois</i>
<b>11:40 am – 12:30 pm</b>	Technical Opportunities in the Industry - Where are We Going? <i>Phil Madson, KATZEN International Inc.</i>
<b>12:30 pm – 1:00 pm</b>	Course Wrap-up and Presentation of Certificates

SARAH  
BERNHARDT  
ROOM