

# PROGRAM BOOK

## 2016 AACCC International Annual Meeting

October 23–26  
Savannah, Georgia, U.S.A.



Photo courtesy of GDEcD



#AACCI2016





## Which sample has the ideal gluten quality? The GlutoPeak will tell you

With its innovative analysis process, the Brabender® *GlutoPeak* determines the gluten quality of your milled cereal products - quickly and reliably.

- Flexible analysis of flour, wholemeal flour, coarse meal, vital gluten, and baking mixtures.
- Fast quality analysis in under 10 minutes.
- Precise results from small sample sizes
- Easy-to-use software for simple handling

WE WILL SEE YOU  
AT AACCI 2016  
IN BOOTH #601



# Brabender® CWB

...where quality is measured.

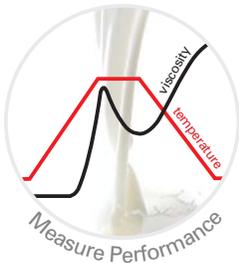


# Instruments Experience Expertise



Powerfully Simple

**Composition & Nutrition** – Our broad line of NIR instruments cover the gamut of applications for food scientists. We offer routine, even portable grain analyzers helping you identify the best grain for your purposes, sophisticated in-line process monitoring systems, and everything in between. These instruments are rugged, reliable, and fit-for-purpose.



Measure Performance

**Function & Performance** – Use our instrument to make certain ingredients match product & customer demands. The RVA tests foods & ingredients where the behavior of starches, hydro-colloids or proteins is critical. The TVT Texture analyzer measures texture – crispness, stickiness, break-force, & all sorts of other texture properties.



Answers to Your Questions

**Just Getting Started** – As part of the PerkinElmer group, we have access to instruments, techniques & expertise at the forefront of science. We'll be bringing that access to the market – health & safety, mycotoxin testing, inorganic analysis, & more. We'll be even more equipped to help you answer the questions you have about your ingredients & products.

# TABLE OF CONTENTS

## ■ GENERAL MEETING INFORMATION

Social Media .....	6
Hours .....	6
Medical Emergency / Safety .....	7
Don't Miss .....	9

## ■ SCHEDULE AT A GLANCE

Full Daily Schedule .....	10
Scientific Sessions at a Glance with Session Formats .....	14

## ■ MEETING FACILITIES ADDRESSES AND TRANSPORTATION SCHEDULE

Meeting Locations .....	16
Ferry and Bus Transportation Schedules .....	16

## ■ PROGRAM SCHEDULES

### Saturday

Saturday Schedule .....	18
Saturday Highlights .....	18

### Sunday

Sunday Schedule .....	18
Sunday Highlights .....	18

### Monday

Monday Schedule .....	19
Monday Highlights .....	20
Monday Morning Scientific Sessions and Presenters .....	20
Monday Afternoon Scientific Sessions and Presenters .....	22

### Tuesday

Tuesday Schedule .....	24
Tuesday Highlights .....	25
Tuesday Morning Scientific Sessions and Presenters .....	26
Tuesday Afternoon Scientific Sessions and Presenters .....	28

### Wednesday

Wednesday Schedule .....	30
Wednesday Highlights .....	30
Wednesday Future of Food – Sustainability and Safety Special Symposium .....	31
Wednesday Morning Scientific Sessions and Presenters .....	32
Wednesday Afternoon Scientific Sessions and Presenters .....	33

## ■ SCIENTIFIC POSTERS

Hours .....	37
Poster Floor Plan by Category .....	37
Titles and Authors .....	38

## ■ EXHIBITION

Exhibition Hall and Poster Viewing Hours .....	45
Exhibit Hall Floor Plan .....	45
Exhibitor Descriptions .....	46
Exhibitor Numerical Listing .....	55

## ■ AWARDS & RECOGNITION

2016 AACC International Annual Meeting Sponsors .....	56
AACC International Corporate Members .....	57
2016 AACC International Award Recipients.....	59
2015–2016 AACC International Board of Directors .....	60
Making a Difference—Committee Chair and Member List .....	61
AACCI Headquarters Staff .....	63
AACCI Past Presidents .....	63

## ADVERTISER'S INDEX

Bay State Milling Company.....	33
www.baystatemilling.com	
Buhler Inc. ....	44
www.buhlergroup.com	
C.W. Brabender Instruments, Inc. ....	Inside Front Cover
www.cwbrabender.com	
CPM Wolverine Proctor LLC .....	13
www.wolverineproctor.com	
Domino Specialty Ingredients .....	4
www.dominospecialtyingredients.com	
DSM Nutritional Products .....	64
www.dsm.com/human-nutrition	
Enzyme Development Corporation .....	17
www.enzymedevelopment.com	
Grain Millers, Inc. ....	36
www.grainmillers.com	
Great Plains Analytical Laboratory.....	Inside Back Cover
www.gpalab.com	
Healthy Food Ingredients .....	58
www.HFfamily.com	
ICL Food Specialties .....	3
www.iclfood.com	
Medallion Labs .....	43
www.medallionlabs.com	
Megazyme .....	8
www.megazyme.com	
NP Analytical Laboratories (NPAL) .....	25
www.npal.com	
Palsgaard .....	7
www.palsgaard.com	
Perten Instruments .....	1
www.perten.com	
Wenger Manufacturing, Inc. ....	Back Cover
www.wenger.com	



# Expertise that Inspires *Globally*

CULINARY • CONVENIENCE • INDULGENCE • HEALTHY REDUCTION • NATURAL • FORTIFICATION

## Create your Masterpiece

ICL Food Specialties' global experts provide proven ideas to accelerate new product development. Focused on trend-inspired food and beverage applications, our ingredient portfolio offers you new ideas and the creativity to develop your next innovation.



[www.iclfood.com](http://www.iclfood.com) | 1-855-ICL-SPEC | [foodexperts@icl-group.com](mailto:foodexperts@icl-group.com) 

©2016 ICL Food Specialties. A division of ICL Performance Products. All rights reserved.

# Rice Possibilities

Domino Specialty Ingredients provides a variety of high-quality rice products in addition to its certified organic offerings and wide range of sweetener solutions.



**Rice Products** – Grown in the USA, and provides a clean label alternative

Copyright 2016 Domino Foods, Inc.



**Domino Foods, Inc.**  
Specialty Ingredients

**Essential Ingredients for Good Food**

[DominoSpecialtyIngredients.com](http://DominoSpecialtyIngredients.com)  
800.446.9763

# WELCOME



Lydia Tooker Midness

Greetings and welcome to Savannah, Georgia, for the 101st AACCI International Annual Meeting. I am so pleased that you are here. Coming off of our Centennial year, our

board and volunteers have been working hard to create a very meaningful membership and annual meeting experience. They have been focusing on AACCI's three strategic growth pillars: Growing Global Outreach, Science & Technology Leadership, and Organizational Engagement. This week, you will see first-hand the outcomes of their hard work and dedicated focus.

The program team has put together a fantastic technical program, keeping old favorites and creating new venues for collaboration and idea sharing. I also want to thank our exhibitors for being here and encourage you to network with your colleagues to learn the latest in a relaxed and informal environment. And new this year, at the membership's request, we are holding "Meet the Board" sessions throughout the week in AACCI Central and on Tuesday afternoon from 4:00 to 5:00 p.m. in Room 103-104, CC to provide better opportunities for dialogue and one-on-one engagement.

Overall, I encourage you to take in as much science as you can, meet new colleagues from around the world, and participate in one of the many networking events we have planned. I also want to encourage everyone to find a new participation opportunity within AACCI. Whether you inquire about Technical Committee membership, join an AACCI division, or volunteer for a committee, I guarantee your involvement will be of great value to you and the future of AACCI International.

I sincerely hope that you enjoy your meeting experience in Savannah, I know I will. The Board and I look forward to connecting with you in the days ahead!

Lydia Tooker Midness  
AACCI International President



Satya Jonnalagadda



Lauren Brewer

## On behalf of the 2016 Program Committee,

it is our pleasure to welcome you to the 2016 AACCI Annual Meeting and to beautiful Savannah! Many individuals have put a lot of careful thought, time, and planning into making this year's Annual Meeting, creating an outstanding, timely, provoking, and ground-breaking scientific program. The program encompasses current-day science and technology influencing our industry but also looks at future technologies that will help advance cereal science. In addition to scientific and technical sessions, the program also includes Hot Topics, Professional Development workshops, and an opportunity to interact directly with AACCI's leadership, among others. To get the most out of the Annual Meeting, we urge you to take in as many sessions as possible; even reaching outside of your own field of practice to expand your knowledge. Use every opportunity to network with your peers. Career and life-enhancing relationships can be formed through contacts made at the Annual Meeting events. You've worked hard to get here, so reward yourself by soaking in as much science as possible. You've earned it! We hope you have a great Annual Meeting! Welcome to Savannah!

Satya Jonnalagadda  
2016 Program Team Chair

Lauren Brewer  
2016 Program Team Vice Chair

## Program Team Listing

**Program Team Chair:** Satya Jonnalagadda, *Kerry Ingredients & Flavours, U.S.A.*

**Program Team Vice Chair:** Lauren Brewer, *General Mills, U.S.A.*

**Program Team Board Liaison:** Deirdre E. Ortiz, *Kellogg Co., U.S.A.*

## 2016 Team

Derrick Amoako, *Texas A&M University, College Station, TX, U.S.A.*

Claudia Carter, *California Wheat Commission, Woodland, CA, U.S.A.*

Yi Fang Chu, *Pepsico Nutrition, Barrington, IL, U.S.A.*

Sean Finnie, *Bay State Milling, Hopkins, MN, U.S.A.*

Crispin Howitt, *CSIRO - Agriculture Flagship, Canberra, Australia*

Alecia Kizonas, *USDA ARS, Pullman, WA, U.S.A.*

Maneka Malalgoda, *North Dakota State University, Fargo, ND, U.S.A.*

Alessandra Marti, *University of Milan, Milano, Italy*

Laura M. Nystroem, *ETH Zurich, Laboratory of Food Biochemistry, Zurich, Switzerland*

Simon Penson, *Campden BRI, Cereals and Milling, Chipping Campden, United Kingdom*

Cristina M. Rosell, *IATA - CSIC, Paterna, Valencia, Spain*

Katharina Scherf, *Deutsche Forschungsanstalt fur Lebensmittelchemie, Freising, Germany*

Supriya Varma, *Frito-Lay Inc., Plano, TX, U.S.A.*

## GENERAL MEETING INFORMATION

All meetings take place at the Savannah Convention Center (CC) or Westin Savannah Harbor (Westin). Please be sure to note meeting locations when planning your schedule.

### GO SOCIAL—Connect and Share with Your Colleagues

#### Share Your AACCI Annual Meeting Experience!

Connect with fellow attendees in the hallways, sessions, and events and then continue the discussion online!

- Share your meeting experience on Twitter with #AACCI2016
- Start a discussion group about the latest trends and research or post your insights through AACCI LinkedIn
- Visit the AACCI Facebook page at [www.facebook.com/AACCIInternational](http://www.facebook.com/AACCIInternational) to join the group, where you can also create discussions, share photos, make comments, and post videos.



### Registration Hours

*Rotunda, CC*

#### Sunday, October 23

8:00 a.m. – 12:00 p.m. Exhibitor Registration Only  
12:00 – 6:30 p.m. All Registration

#### Monday, October 24

7:30 a.m. – 6:30 p.m.

#### Tuesday, October 25

7:30 a.m. – 5:30 p.m.

#### Wednesday, October 26

7:30 a.m. – 3:15 p.m.

### Speaker Ready Room Hours

*Jasper Board Room, CC*

AACCI will again be recording scientific session presentations with author approval. The Speaker Ready Room is available for presenters to do the final loading of presentations and make any last-minute changes to presentations.

Sunday, October 23 2:00 – 7:00 p.m.  
Monday, October 24 7:00 a.m. – 5:30 p.m.  
Tuesday, October 25 7:00 a.m. – 5:30 p.m.  
Wednesday, October 26 7:30 a.m. – 2:30 p.m.

### Exhibit Hall & Poster Hours

*Hall A, CC*

#### Sunday, October 23

8:00 a.m. – 2:00 p.m. Exhibit Set-Up  
4:30 – 6:30 p.m. Grand Opening Exhibition

#### Monday, October 24

7:00 – 11:00 a.m. Poster Set-Up by Authors  
11:30 a.m. – 6:00 p.m. Poster Viewing  
3:00 – 6:00 p.m. Beer & Posters, Exhibit Hall Open, Grain Exchange  
4:00 – 5:00 p.m. Student Poster Authors Present  
5:00 – 6:00 p.m. Poster Authors Present (odd-numbered posters)

#### Tuesday, October 25

8:00 a.m. – 2:15 p.m. Poster Viewing  
12:00 – 2:15 p.m. Lunch with the Exhibitors and Poster Viewing, Grain Exchange  
1:00 – 2:00 p.m. Poster Authors Present (even-numbered posters)  
2:30 – 6:00 p.m. Exhibit and Poster Take-Down

### Meeting Room Space Available

An open meeting room will be available in the Convention Center for up to 20 people. Sign up at the Registration Desk located in the main rotunda of the Convention Center.

### Photography

Photography is not permitted in the session rooms, Exhibit Hall, or poster sessions at any time.

### Photo and Video Release

Photographs and video will be taken at the 2016 AACCI Annual Meeting. By attending this meeting, you agree to allow AACCI's use of your photo or captured video in any AACCI publications, website, meeting, and/or association promotions.

### Conference Recordings Available to All Meeting Attendees

Miss a session or presentation? Recordings of presentations, with author approval, will be available to meeting attendees within three weeks after the meeting for free. Watch for e-mails after the meeting with more details on how to stay connected to the 2016 Annual Meeting and keep the science going.

### Committee Meetings

Unless otherwise noted, all meetings are open for any AACCI 2016 Annual Meeting registered attendee to participate.

## Medical Emergencies / Safety

The nearest medical facilities are:

**Candler Hospital, an affiliate of St. Joseph's/Candler**  
 5353 Reynolds Street  
 Savannah, Georgia 31405 U.S.A.  
 Telephone: +1.912.819.6000  
 www.sjchs.org

**Memorial Health**  
 4700 Waters Avenue  
 Savannah, Georgia 31404-6220 U.S.A.  
 Telephone: +1.912.350.8515  
 www.memorialhealth.com

## Safety Procedures

- Do not travel alone—stay in groups and travel in well-lit areas.
- Remove name badges when outside the hotel and Convention Center unless you are participating in an annual meeting event.
- Do not give your room number out to anyone you do not know and avoid giving out your room number in conversations that strangers may overhear.
- Bolt your hotel room door and only open it when you know who is on the other side. (Note: Hotel personnel wear uniforms and have identification badges. If in doubt, call hotel security or the front desk to verify an employee's identity.)

- Do not leave your door ajar if you are going down the hall for ice. Someone may enter when you are not looking.
- Know where the stairs are located in case of a fire. Do not use elevators. Also, count the number of doors to the nearest exit in case you cannot see in a smoke-filled hallway.
- Valuables, airline tickets, and money should be kept in a hotel safety deposit box or in a room safe, if available.

## Procedures in Case of a Fire in the Hotel

- Leave the hotel as quickly as possible. If you cannot, stay in your room and call the operator or security to let them know you are in your room.
- Put your hand on the room door to see if it is hot before opening it. If it is, do not open it quickly. Open it just a crack to see what is on the other side and be prepared to slam it quickly if necessary.
- If you leave your room, take your room key with you. Shut your room door to keep smoke out. You may have to return if the exit is blocked. Remember the way back to your room as you go to the exit in case you need to return.
- If necessary, drop to your knees to avoid smoke. Tie a wet towel around your nose and mouth to act as a smoke filter. Fold it into a triangle and put the corner in your mouth.
- Do not take the elevator when you smell smoke or if you know that there is a fire in the building.



# Emulsifiers and know-how in bakery put to work



Licence no.: RSPO-1106336

Palsgaard developed and patented the activated cake emulsifier technology over 30 years ago and we haven't stopped innovating since.

Our unique emulsifiers are a suitable solution for lean label products that are in high demand from consumers. Our activated emulsifiers are fast reacting and highly tolerant and will help you remove PHOs and trans fats from your baked goods. Using our global application centers we are happy to share our expertise to help producers test and develop new recipes for:

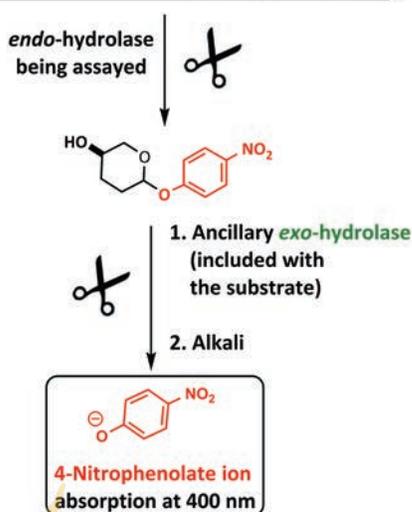
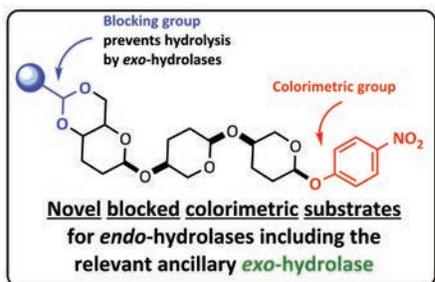
- Bakers' mixes
- Retail mixes
- Industrial cakes



Visit [www.palsgaard.com](http://www.palsgaard.com) or visit us at the IBIE, booth #8911 to learn more about how we can help you in your product development.

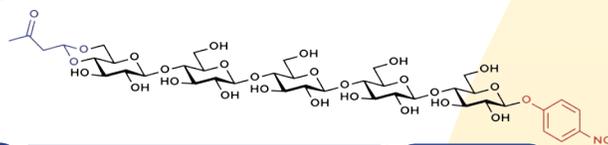
In just three words, we define our **commitment**. As a global supplier of quality products, application expertise, how to regional and multi-national food companies, **loyalty** means that we act as a reliable and honest partner for our customers, we treat information confidentially, how to keep a business secret. to Palsgaard **Responsibility** means caring about the environment and being aware of our social responsibility; we have a goal to be CO<sub>2</sub> neutral. We are members of SEDEX and RSPO, to Palsgaard **commitment** means we are dedicated to getting the best results for our products - to the benefit of their customers, we care about our employees and have a declared aim that Palsgaard must be a pleasant place to work. Palsgaard we know that the most important resource is the know-how and dedication found in our employees. **Heart Working People** at Palsgaard we don't sell standard solutions - we start with your needs. Palsgaard - heart working people

## Novel enzyme coupled blocked colorimetric substrates: the ultimate solution for the assay of carbohydrate *endo*-hydrolases

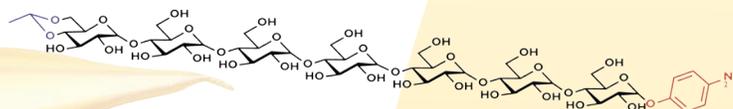


- Bespoke chemical structure ✓
- Completely specific for limit-dextrinase or pullulanase ✓
- Analysis of crude malt extracts: suitable for use with all cereals ✓
- Analysis of purified enzymes ✓
- Control standards included ✓
- Chemically-defined substrate: no variability between substrate batches ✓
- Suitable for automation ✓
- Quantitative assay, high sensitivity ✓

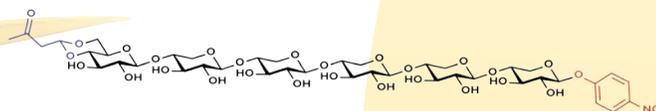
### **endo-CELLULASE** K-CellG5



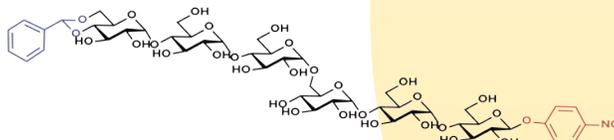
### **α-AMYLASE** K-AMYLS



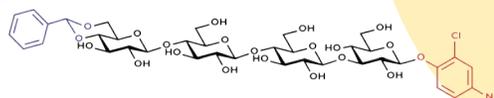
### **endo-XYLANASE** K-XylX6



### **LIMIT-DEXTRINASE / PULLULANASE** K-PullG6



### **MALT β-GLUCANASE / LICHENASE** K-MBG4



# GENERAL MEETING INFORMATION



## What's New—Open Member Forum with Your AACCI Board of Directors

The AACCI Board of Directors invites you to join them on Tuesday at 4:00 p.m. in 103-104, CC to learn about current strategies and priorities for AACCI. Hear how we are growing global outreach, achieving science and technology leadership, and building organizational engagement.

## Grain Exchange

Hall A, CC

Come hear these short, 15-minute presentations in the Exhibit Hall on Monday and Tuesday, as exhibitors showcase their latest products and services.

## Free Workshops

- Publishing Your Cereal Science Research
- Developing Our Future Leaders: Bringing Your Best Self to the Table

## First Timers' Lounge

Tondee's Café, CC

Open for networking during meeting hours. New and returning attendees are welcome.

Sunday, October 23	12:00 – 6:30 p.m.
Monday, October 24	7:30 a.m. – 6:30 p.m.
Tuesday, October 25	7:30 a.m. – 6:30 p.m.
Wednesday, October 26	7:30 a.m. – 3:15 p.m.

## After Glow Reception

Tuesday 9:00 – 10:30 p.m.

Join us poolside at the Westin to mix and mingle with your peers.

## AACCI Central

### Meet the Board of Directors

The AACCI Board of Directors will be at AACCI Central during session break times. Stop by to learn more about AACCI and initiatives for the coming year.

### AACCI PRESS Bookstore Hours

Rotunda, CC

Sunday, October 23	4:30 – 6:30 p.m.
Monday, October 24	8:30 a.m. – 5:00 p.m.
Tuesday, October 25	8:30 a.m. – 5:00 p.m.
Wednesday, October 26	8:30 a.m. – 12:00 p.m.

### Recognition for a Job Well Done

Stop by to view a video thanking all of our volunteers, corporate members, and 2016 awardees.

### Engage in AACCI

Show interest in volunteering, or let us know about a cereal grain science event you have coming up, on one of our engagement boards!

## Invest in the future of AACCI and the grain-based foods industry!

Visit the Foundation Booth in the Exhibit Hall during exhibit hours to see this year's talented awardees, learn more about the new Foundation focus areas, and donate to support the future of our science!

## SCHEDULE AT A GLANCE

### Saturday, October 22

8:00 – 10:00 a.m.	Finance Committee Meeting	Riverscape, Westin
9:00 a.m. – 6:00 p.m.	Pre-Meeting Workshop: Enzymes in Grain-Based Products*	Grand E, Westin
10:30 a.m. – 5:00 p.m.	Board of Directors Meeting	Riverscape, Westin
6:00 – 9:00 p.m.	Cincinnati Section Meeting and Dinner†	Garibaldi Café

### Sunday, October 23

8:00 – 10:00 a.m.	Check Sample Committee Meeting	Grand F, Westin
8:00 a.m. – 12:00 p.m.	Exhibitor Registration	Rotunda, CC
8:00 a.m. – 2:00 p.m.	Exhibit Set-Up	Hall A, CC
9:30 – 11:00 a.m.	Book Acquisitions Committee Meeting	Riverscape, Westin
11:00 a.m. – 12:30 p.m.	2016/2017 Technical Program Planning Team Leaders Meeting and Lunch	Grand F, Westin
11:00 a.m. – 12:30 p.m.	<i>Cereal Chemistry</i> Editorial Board Luncheon	Grand E, Westin
12:00 – 6:30 p.m.	Registration Open	Rotunda, CC
12:00 – 6:30 p.m.	First Timers' Lounge Open	Tondee's Café, CC
12:30 – 2:00 p.m.	Workshop: Publishing Your Cereal Science Research	Grand D, Westin
1:00 – 2:30 p.m.	Approved Methods Technical Committee Meeting	Harbor B, Westin
1:00 – 3:00 p.m.	Milling & Baking Division Executive Committee and Advisory Board Meeting	Pulaski Board, CC
1:30 – 3:00 p.m.	Student Association Executive Committee and University Representative Meeting	Gwinnett Board Room, CC
2:00 – 2:45 p.m.	First Timers' Session	Chatham C, CC
2:00 – 7:00 p.m.	Speaker Ready Room Open	Jasper Board Room, CC
3:00 – 4:30 p.m.	Opening General Session with Plenary	Chatham AB, CC
4:30 – 6:30 p.m.	Grand Opening Exhibition*	Hall A, CC
4:30 – 6:30 p.m.	AACCI PRESS Bookstore Open	Rotunda, CC

### Monday, October 24

7:00 – 8:30 a.m.	Asian Products Technical Committee Meeting	Grand E, Westin
7:00 – 8:30 a.m.	Bioactive Compounds Technical Committee Meeting	Grand B, Westin
7:00 – 8:30 a.m.	Food Safety and Microbiology Technical Committee Meeting	Grand D, Westin
7:00 – 8:30 a.m.	Molecular Biomarkers for Grain (and Pulses) Technical Committee Meeting	Grand F, Westin
7:00 – 8:30 a.m.	Physical Testing Methods Technical Committee Meeting	Riverscape, Westin
7:00 – 8:30 a.m.	Pulse and Legume Technical Committee Meeting	Grand C, Westin
7:00 – 8:30 a.m.	Vitamins, Minerals and Lipids Technical Committee Meeting	Moorings, Westin
7:00 – 11:00 a.m.	Poster Set-Up	Hall A, CC
7:00 a.m. – 5:30 p.m.	Speaker Ready Room Open	Jasper Board Room, CC
7:30 a.m. – 6:30 p.m.	Registration Open	Rotunda, CC
7:30 a.m. – 6:30 p.m.	First Timers' Lounge Open	Tondee's Café, CC
8:30 – 10:00 a.m.	Symposium: Sensory Approaches and New Methods for Developing Grain-Based Products	Oglethorpe, CC
8:30 – 10:15 a.m.	Technical: Analytical Measures for Cereal Chemistry	Room 200–201, CC
8:30 – 10:15 a.m.	Technical: Impact of Rheology on Product Quality	Room 105–106, CC
8:30 – 10:15 a.m.	Technical: Quality and Functionality in Various End-Use, Applicable Solutions	Room 203–205, CC
8:30 a.m. – 12:00 p.m.	Student Product Development Competition	Room 103–104, CC
8:30 a.m. – 5:00 p.m.	AACCI PRESS Bookstore Open	Rotunda, CC
9:00 – 10:00 a.m.	China Strategies Task Force Meeting	Pulaski, CC
10:00 – 11:30 a.m.	Scientific Advisory Panel Meeting	Harbor B, Westin
10:30 a.m. – 12:00 p.m.	Technical: Extrusion for Sustainable Quality and Nutrition Improvements	Room 200–201, CC
10:30 a.m. – 12:00 p.m.	Symposium: Mapping the Physical and Functional Attributes of Starches: Understanding the Impact of Starches on the Texture, Food Quality and Sensory Perception for Optimal Product Formulation	Room 203–205, CC
10:30 a.m. – 12:00 p.m.	Hot Topic: The New Labeling Regulations for Dietary Fiber: Facts, Challenges and Risks—How Will Your Label Change with Regard to Dietary Fiber Under the New Regulations	Oglethorpe, CC
10:30 a.m. – 12:00 p.m.	Technical: Rice: From Field to Application	Chatham AB, CC
11:30 a.m. – 6:00 p.m.	Poster Viewing	Hall A, CC
12:00 – 1:00 p.m.	Meet the <i>Cereal Chemistry</i> Editor	Rotunda, CC
12:00 – 1:30 p.m.	Milling & Baking Division Meeting and Networking Lunch*	Room 100–101, CC
12:00 – 1:30 p.m.	Nutrition Division Meeting and Lunch*	Room 102, CC

12:00 – 1:30 p.m.	Rice Division Lunch*	Greene Board Room, CC
1:00 – 1:45 p.m.	Student Association Business Meeting	Room 105-106, CC
1:30 – 3:00 p.m.	Food Safety, Quality, and Regulatory Committee Meeting	Riverscape, Westin
1:30 – 3:00 p.m.	Symposium: Innovative Plant Proteins and Protein Derivatives: Production and Properties	Oglethorpe, CC
1:30 – 3:00 p.m.	Hot Topic: Mitigating Flour Food-Safety Risks: Insights from the Recent Flour Recall	Room 203–205, CC
1:30 – 3:00 p.m.	Symposium: Novel Proteomics Approaches in Cereal Grain Research	Chatham C, CC
1:30 – 3:00 p.m.	Symposium: Recent Advances on Structure-Function Relations of Rice and Rice-Based Food	Room 200–201, CC
1:30 – 3:00 p.m.	Technical: Researching Health Benefits of Grain and Components: Part 1	Chatham AB, CC
3:00 – 6:00 p.m.	Exhibit Hall Open	Hall A, CC
3:00 – 6:00 p.m.	Beer & Posters	Hall A, CC
4:00 – 5:00 p.m.	Student Poster Authors Present	Hall A, CC
5:00 – 6:00 p.m.	Poster Authors Present (odd-numbered posters)	Hall A, CC
5:30 – 6:30 p.m.	Rheology Leadership Team Planning Meeting	Gwinnett Board Room, CC
6:00 – 6:30 p.m.	Carbohydrate Division Executive Committee Meeting	Room 100–101, CC
6:30 – 7:00 p.m.	Carbohydrate Division Meeting	Room 100–101, CC
7:00 – 9:30 p.m.	Cereals&Europe Section Dinner*	Midnight Sun Lounge, Westin
7:30 – 10:00 p.m.	Student Association Social and Dinner*†	Moon River Brewing

## Tuesday, October 25

7:00 – 8:30 a.m.	Past Presidents' Breakfast	Harbor B, Westin
7:00 – 8:30 a.m.	Bread Baking Methods Technical Committee Meeting	Riverscape, Westin
7:00 – 8:30 a.m.	Experimental Milling Technical Committee Meeting	Grand F, Westin
7:00 – 8:30 a.m.	Oat and Barley Products Technical Committee Meeting	Grand C, Westin
7:00 – 8:30 a.m.	Rice Milling and Quality Technical Committee Meeting	Moorings, Westin
7:00 – 8:30 a.m.	Soft Wheat and Flour Products Technical Committee Meeting	Grand E, Westin
7:00 – 8:30 a.m.	Spectroscopic Methods Technical Committee Meeting	Grand D, Westin
7:00 – 8:30 a.m.	Yeast Evaluation Technical Committee Meeting	Grand B, Westin
7:00 a.m. – 5:30 p.m.	Speaker Ready Room Open	Jasper Board Room, CC
7:30 a.m. – 5:30 p.m.	Registration Open	Rotunda, CC
7:30 a.m. – 5:30 p.m.	First Timers' Lounge	Tondee's Café, CC
8:00 a.m. – 2:15 p.m.	Poster Viewing	Hall A, CC
8:30 – 10:00 a.m.	Section Leadership Meeting	Greene Board Room, CC
8:30 – 10:00 a.m.	Hot Topic: Food Safety Modernization Act (FSMA) Regulations and Their Impact	Oglethorpe, CC
8:30 – 10:00 a.m.	Technical: Researching Health Benefits of Grain and Components: Part 2	Room 200–201, CC
8:30 – 10:00 a.m.	Symposium: The Statistics of Sampling, Analytical Methods Development and Experimentation	Room 203–205, CC
8:30 – 10:00 a.m.	Symposium: Understanding the Nutritional & Functional Benefits of Pulses Flours & Fibre	Chatham C, CC
8:30 – 11:00 a.m.	Best Student Research Paper Competition	Room 103–104, CC
8:30 a.m. – 5:00 p.m.	AACCI PRESS Bookstore Open	Rotunda, CC
10:00 – 10:30 a.m.	Nutrition Division Networking Break	Room 101, CC
10:00 – 11:00 a.m.	Awards Committee Meeting	Room 102, CC
10:30 – 11:30 a.m.	Exhibitor Advisory Meeting	Room 100, CC
10:30 a.m. – 12:00 p.m.	Workshop: Developing Our Future Leaders: Bringing Your Best Self to the Table	Room 105–106, CC
10:30 a.m. – 12:00 p.m.	Technical: Practical Applications for Classic Dough Systems	Room 200–201, CC
10:30 a.m. – 12:00 p.m.	Symposium: Protein Trends and Technologies: Health, Regulatory and Formulation Challenges	Oglethorpe, CC
10:30 a.m. – 12:00 p.m.	Symposium: Pulses as Ingredients in Innovative Food Applications: Physicochemical and Nutri-Functional Attributes	Chatham C, CC
10:30 a.m. – 12:00 p.m.	Hot Topic: GM Food Labeling: Inside the Controversy	Room 203–205, CC
11:00 a.m. – 12:00 p.m.	Professional Development Panel Meeting	Pulaski, CC
12:00 – 2:15 p.m.	Lunch and Ice Cream with the Exhibitors & Poster Viewing	Hall A, CC
12:30 – 2:30 p.m.	Approved Methods Technical Committee Lunch	Harbor B, Westin
1:00 – 2:00 p.m.	Poster Authors Present (even-numbered posters)	Hall A, CC
2:30 – 3:30 p.m.	Division Leadership Council Meeting	Room 102, CC
2:30 – 3:30 p.m.	Foundation Board Meeting	Harbor A, Westin

\* Ticket Required • † Offsite Location

continued

## SCHEDULE AT A GLANCE

2:30 – 4:00 p.m.	Symposium: Dietary Fiber in the Food Industry: A Role for Psyllium?	Oglethorpe, CC
2:30 – 4:00 p.m.	Technical: Functionality of Novel Grains, Pulse and Components	Room 200–201, CC
2:30 – 4:00 p.m.	Symposium: The Future of Food Safety	Chatham AB, CC
2:30 – 4:00 p.m.	Symposium: Wheat Quality—What Is It and How Have We Been Measuring It?	Room 203-205, CC
2:30 – 6:00 p.m.	Exhibit and Poster Take-Down	Hall A, CC
4:00 – 5:00 p.m.	What's New?—Open Member Forum with Your AACCI Board of Directors	Room 103-104, CC
4:30 – 5:30 p.m.	Biotechnology Division Business Meeting	Greene Board Room, CC
4:30 – 5:30 p.m.	Protein Division Business Meeting	Room 102, CC
5:00 – 6:00 p.m.	Speed Mentoring Social*	Grand Ballroom C, Westin
5:30 – 6:30 p.m.	Biotechnology and Protein Division Joint Social*	Room 101, CC
6:30 – 9:30 p.m.	Carbohydrate Division Dinner*†	Vic's on the River
9:00 – 10:30 p.m.	After Glow Reception*†	Midnight Sun Lounge, Westin

### Wednesday, October 26

7:00 – 8:15 a.m.	Kansas State University Breakfast*	Room 100, CC
7:00 – 8:15 a.m.	North Dakota State University Alumni Breakfast*	Greene Board Room, CC
7:00 – 8:30 a.m.	Chemical Leavening Agents Technical Committee Meetings	Grand F, Westin
7:00 – 8:30 a.m.	Dietary Fiber and Other Carbohydrates Technical Committee Meeting	Grand E, Westin
7:00 – 8:30 a.m.	Methods for Grain and Flour Technical Committee Meeting	Grand D, Westin
7:00 – 8:30 a.m.	Pasta Products Analysis Committee Meeting	Grand A, Westin
7:00 – 8:30 a.m.	Protein and Enzyme Methods Technical Committee Meeting	Riverscape, Westin
7:00 – 8:30 a.m.	Statistical Advisory Technical Committee Meeting	Moorings, Westin
7:00 a.m. – 2:30 p.m.	Speaker Ready Room Open	Jasper Board Room, CC
7:30 a.m. – 3:15 p.m.	Registration Open	Rotunda, CC
7:30 a.m. – 3:15 p.m.	First Timers' Lounge Open	Tondee's Café, CC
8:30 – 10:00 a.m.	General Session and Plenary	Chatham AB, CC
8:30 a.m. – 12:00 p.m.	AACCI PRESS Bookstore Open	Rotunda, CC
9:00 – 10:00 a.m.	Plenary: Challenges for Food Production and the Potential for the Modern Plant Breeding Methods to Contribute	Chatham AB, CC
9:00 – 10:00 a.m.	Special Symposium: The Future of Food—Sustainability and Safety	Chatham AB, CC
10:00 a.m. – 3:00 p.m.	Special Symposium: The Future of Food—Sustainability and Safety (continued)	Oglethorpe, CC
10:30 – 11:30 a.m.	Nominating Committee Meeting	Harbor A, Westin
10:30 a.m. – 12:00 p.m.	Hot Topic: Are National Dietary Guidelines Effective in Promoting Whole Grain Consumption	Chatham AB, CC
10:30 a.m. – 12:00 p.m.	Symposium: Cereals and Pulse-Based Foods in Asia: Innovation and Modernization for Health	Room 200–201, CC
10:30 a.m. – 12:00 p.m.	Technical: Economical Testing and Processing for the Grain Industry	Chatham C, CC
10:30 a.m. – 12:00 p.m.	Symposium: Powder Rheology	Room 203–205, CC
11:00 a.m. – 12:00 p.m.	2017 Technical Program Planning Meeting	Harbor B, Westin
12:00 – 1:30 p.m.	ICC Luncheon*	Room 100, CC
12:00 – 1:30 p.m.	Engineering & Processing Division Meeting and Lunch*	Aqua Star, Westin
12:00 – 1:30 p.m.	Rheology Division Meeting and Lunch*	Room 103, CC
1:30 – 3:00 p.m.	Technical: Late-Breaking Technicals	Room 200–201, CC
1:30 – 3:00 p.m.	Technical: Quality and Food Safety for the Grain Industry	Room 203–205, CC
1:30 – 3:00 p.m.	Technical: Spectrometric Analysis of Grain Components	Chatham C
1:30 – 3:00 p.m.	Symposium: Sprouted Grains: What is in it for Consumers?	Chatham AB, CC
3:10 – 5:30 p.m.	Special Symposium: The Future of Food—Sustainability and Safety (continued)	Chatham AB, CC
3:10 – 5:30 p.m.	General Session: Future Trends for Food Production	Chatham AB, CC
5:30 – 6:15 p.m.	Close and Refreshments	Tondee's Café, CC

### Thursday, October 26

8:00 – 11:00 a.m.	Board of Directors Meeting	Riverscape, Westin
-------------------	----------------------------	--------------------

\* Ticket Required • † Offsite Location



WOLVERINE PROCTOR

# ENHANCE YOUR PRODUCT



*Ultra Sanitary III Dryer*



*Fluid Bed Dryer*



*Multiple Conveyor  
Dryer*



*Flaking Mills*



*Shredding & Forming Systems*



*Rotary Batch Cookers*

***Most Sanitary, Energy-efficient Equipment  
Available Today***



**CPM Wolverine Proctor LLC**  
251 Gibraltar Road  
Horsham, PA 19044  
Tel: 215.443.5200 Fax: 215.443.5206  
[www.wolverineproctor.com](http://www.wolverineproctor.com)  
E-mail: [sales@cpmwolverineproctor.com](mailto:sales@cpmwolverineproctor.com)

**CPM Wolverine Proctor LTD**  
3 Langlands Avenue  
Kelvin South Business Park  
East Kilbride, G75 0YG, Scotland  
Tel: 44 (0) 1355 575350 Fax: 44 (0) 1355 575351  
[www.wolverineproctor.co.uk](http://www.wolverineproctor.co.uk)  
E-mail: [sales@wolverineproctor.co.uk](mailto:sales@wolverineproctor.co.uk)

# SCIENTIFIC SESSIONS AT A GLANCE

All sessions listed are held at the Savannah Convention Center, unless noted.

<b>Saturday, October 22</b>			
9:00 a.m. – 6:00 p.m.	<b>Pre-meeting Workshop:</b> Enzymes in Grain-Based Products (Westin Grand E)		
<b>Sunday, October 23</b>			
12:30 – 2:00 p.m.	<b>Workshop:</b> Publishing Your Cereal Science Research (Westin Grand D)		
2:00 – 2:45 p.m.	First Timer Session (Chatham C)		
3:00 – 4:30 p.m.	Opening General Session with Plenary Johannes Keizer (Chatham AB)		
4:30 – 6:30 p.m.	Grand Opening Exhibition (Hall A)		
<b>Monday, October 24</b>			
8:30 – 10:15 a.m.	<b>Symposium:</b> Sensory Approaches and New Methods for Developing Grain-Based Products (Oglethorpe)	<b>Technical Session:</b> Analytical Measures for Cereal Chemistry (Room 200-201)	
8:30 a.m. – 12:00 p.m.	Student Product Development Competition (Room 103-104)		
10:30 a.m. – 12:00 p.m.	<b>Hot Topic:</b> The New Labeling Regulations for Dietary Fiber: Facts, Challenges and Risks - How will your Label Change with Regard to Dietary Fiber Under the New Regulations? (Oglethorpe)	<b>Technical Session:</b> Extrusion for Sustainable Quality and Nutrition Improvements (Room 200-201)	
11:30 a.m. – 6:00 p.m.	Poster Viewing (Hall A)		
12:00 – 1:30 p.m.	Division Lunches		
1:30 – 3:00 p.m.	<b>Symposium:</b> Innovative Plant Proteins and Protein Derivatives: Production and Properties (Oglethorpe)	<b>Symposium:</b> Recent Advances on Structure-Function Relations of Rice and Rice-Based Food (Room 200-201)	<b>Symposium:</b> Novel Proteomics Approaches in Cereal Grain Research (Chatham C)
3:00 – 6:00 p.m.	Exhibits • Beer & Posters (Students 4:00 – 5:00 p.m. & Odd; Numbered Poster Authors Present 5:00 – 6:00 p.m.) (Hall A)		
5:30 – 10:00 p.m.	Section and Division Socials		
<b>Tuesday, October 25</b>			
8:00 – 2:15 p.m.	Poster Viewing (Hall A)		
8:30 – 10:00 a.m.	<b>Hot Topic:</b> Food Safety Modernization Act (FSMA) Regulations and Their Impact (Oglethorpe)	<b>Symposium:</b> Understanding the Nutritional & Functional Benefits of Pulses Flours & Fibre (Chatham C)	
8:30 – 11:00 a.m.	Best Student Research Paper Competition (Room 103-104)		
10:30 a.m. – 12:00 p.m.	<b>Technical Session:</b> Practical Applications for Classic Dough Systems (Room 200-201)	<b>Symposium:</b> Pulses as Ingredients in Innovative Food Applications: Physicochemical and Nutri-Functional Attributes (Chatham C)	<b>Symposium:</b> Protein Trends and Technologies: Health, Regulatory, and Formulation Challenges (Oglethorpe)
12:00 – 2:15 p.m.	Exhibits & Lunch (Hall A)		
1:00 – 2:00 p.m.	Even Numbered Poster Authors Present (Hall A)		
2:30 – 4:00 p.m.	<b>Symposium:</b> Dietary Fiber in the Food Industry: A Role for Psyllium? (Oglethorpe)	<b>Technical Session:</b> Functionality of Novel Grains, Pulse, and Components (Room 200-201)	
4:00 – 5:00 p.m.	What's New—Open Member Forum with Your AACCI Board of Directors (Room 103-104)		
5:00 – 6:00 p.m.	Speed Mentoring Social (Westin Grand C)		
5:30 – 9:30 p.m.	Division Socials		
9:00 – 10:30 p.m.	After Glow Reception (Westin Midnight Sun Lounge)		
<b>Wednesday, October 26</b>			
8:30 – 10:00 a.m.	General Session with Plenary – Nina Fedoroff (Chatham AB)		
9:00 a.m. – 5:30 p.m.	The Future of Food – Sustainability and Safety Special Symposium (9:00 – 10:00 a.m. Chatham AB)		
10:30 a.m. – 12:00 p.m.	<b>Hot Topic -</b> Are National Dietary Guidelines Effective In Promoting Whole Grain Consumption? (Chatham AB)	<b>Symposium:</b> Cereals and Pulse-based Foods in Asia: Innovation and Modernization for Health (Room 200-201)	
12:00 – 1:30 p.m.	Division Lunches, ICC Lunch		
1:30 – 3:00 p.m.	<b>Symposium:</b> Sprouted Grains: What is in It for Consumers? (Chatham AB)	<b>Late-Breaking</b> Technicals Session (Room 200-201)	
3:10 – 5:30 p.m.	<b>General Session –</b> Future Trends for Food Production (Chatham AB)		
5:30 – 6:15 p.m.	Close and Refreshments (Tondée's Café, CC)		



# MEETING FACILITIES ADDRESSES AND TRANSPORTATION

## Savannah Convention Center

1 International Dr., Savannah, GA 31402 U.S.A.  
Phone: +1.912.447.4440

## Westin Savannah Harbor

1 Resort Dr., Savannah, GA, 31421 U.S.A.  
Phone: +1.912.201.2000

## Transportation Schedule

Please see a Savannah Host in GREEN with any questions.



### Ferry Transportation Schedule

The standard ferry is posted at each ferry dock and features one boat running a triangle route to all three docks. City Hall (Hyatt)—Convention Center (Westin)—Waving Girl (Marriott)

Additional ferry boats will run during the AACCI Annual Meeting during the following times:

	<b>Express Schedule (20-min wait)</b> 2 Ferries – 2 routes: Convention Center to Hyatt Dock Convention Center to Marriott Dock	<b>Limited Service ONLY (20-min wait)</b> Convention Center to Hyatt Dock
Sunday, October 23	3:00 – 7:00 p.m.	7:00 p.m. – Midnight
Monday, October 24	6:30 a.m. – 7:30 p.m.	7:30 p.m. – Midnight
Tuesday, October 25	6:30 a.m. – 7:30 p.m.	7:30 p.m. – Midnight
Wednesday, October 26	6:30 a.m. – 7:30 p.m.	7:30 p.m. – Midnight

*The ferry may sometimes be delayed briefly by visibility or large vessel traffic in the area. We appreciate your patience.*



### Bus Schedule

Busses pick up and drop off at Bryan Square between the Convention Center and Westin.

#### Red Route

Hyatt Regency Savannah  
2 W Bay St., Savannah, GA 31401  
Phone: +1.912.238.1234

#### Blue Route

Holiday Inn Express  
199 E Bay St., Savannah, GA 31401  
Phone: +1.912.231.9000

Savannah Marriott Riverfront  
100 General McIntosh Blvd., Savannah, GA 31401  
Phone: +1.912.233.7722

	<b>Express Schedule (20-min wait)</b>	<b>Standard Schedule (30-min wait)</b>
Sunday, October 23	3:00 – 7:00 p.m.	7:30 a.m. – 3:00 p.m.
Monday, October 24	6:30 – 9:00 a.m.   4:00 – 7:30 p.m.	9:00 a.m. – 4:00 p.m.
Tuesday, October 25	6:30 – 9:00 a.m.   4:00 – 7:00 p.m.	9:00 a.m. – 4:00 p.m.
Wednesday, October 26	6:30 – 9:00 a.m.   4:00 – 6:30 p.m.	9:00 a.m. – 4:00 p.m.



# OUR INGREDIENT IS CONSISTENCY

Our enzymes are consistent and uniform in every batch. Consistent performance in your formulation makes it easier to maintain quality and your bottom line. EDC has supplied enzymes to the food industry for over 60 years with specialized customer service.



**Enzyme Development Corporation®**  
At EDC - Enzymes Are Our Business

505 Eighth Avenue, 15th Floor, New York, NY 10018-6505  
212.736.1580 x247 • [info@EnzymeDevelopment.com](mailto:info@EnzymeDevelopment.com) | [EnzymeDevelopment.com](http://EnzymeDevelopment.com)

## PROGRAM SCHEDULES

### SATURDAY, OCTOBER 22

8:00 – 10:00 a.m.	Finance Committee Meeting	Riverscape, Westin
9:00 a.m. – 6:00 p.m.	<b>Pre-meeting Workshop: Enzymes in Grain-Based Products*</b>	Grand E, Westin
10:30 a.m. – 5:00 p.m.	Board of Directors Meeting	Riverscape, Westin
6:00 – 9:00 p.m.	Cincinnati Section Meeting and Dinner†	Garibaldi Café

\* *Ticket Required* • † *Offsite Location*

### SATURDAY HIGHLIGHT

#### Pre-Meeting Workshop: Enzymes in Grain-Based Applications

9:00 a.m. – 6:00 p.m. *Pre-Registration Required*

**Workshop Director:** Peter Moodie, Enzyme Development Corp.

Attendees will gain a better understanding on specific solutions enzymes offer to the product development researcher.

### SUNDAY, OCTOBER 23

8:00 – 10:00 a.m.	Check Sample Committee Meeting	Grand F, Westin
8:00 a.m. – 12:00 p.m.	Exhibitor Registration	Rotunda, CC
8:00 a.m. – 2:00 p.m.	Exhibit Set-Up	Hall A, CC
9:30 – 11:00 a.m.	Book Acquisitions Committee Meeting	Riverscape, Westin
11:00 a.m. – 12:30 p.m.	2016/2017 Technical Program Planning Team Leaders Meeting and Lunch	Grand F, Westin
11:00 a.m. – 12:30 p.m.	<i>Cereal Chemistry</i> Editorial Board Luncheon	Grand E, Westin
12:00 – 6:30 p.m.	Registration Open	Rotunda, CC
12:00 – 6:30 p.m.	First Timers' Lounge Open	Tondee's Café, CC
12:30 – 2:00 p.m.	<b>Workshop: Publishing Your Cereal Science Research</b>	Grand D, Westin
1:00 – 2:30 p.m.	Approved Methods Technical Committee Meeting	Harbor B, Westin
1:00 – 3:00 p.m.	Milling & Baking Division Executive Committee and Advisory Board Meeting	Pulaski Board, CC
1:30 – 3:00 p.m.	Student Association Executive Committee and University Representative Meeting	Gwinnett Board Room, CC
2:00 – 2:45 p.m.	First Timers' Session	Chatham C, CC
2:00 – 7:00 p.m.	Speaker Ready Room Open	Jasper Board Room, CC
3:00 – 4:30 p.m.	<b>Opening General Session with Plenary</b>	Chatham AB, CC
4:30 – 6:30 p.m.	<b>Grand Opening Exhibition*</b>	Hall A, CC
4:30 – 6:30 p.m.	AACCI PRESS Bookstore Open	Rotunda, CC

\* *Ticket Required*

### SUNDAY HIGHLIGHTS

#### Workshop: Publishing Your Cereal Science Research

12:30 – 2:00 p.m.

Publishing the findings of research is an essential professional skill for researchers, yet many seem to find this a difficult aspect of their work. This workshop will feature presentations on the art of writing scientific papers, how to enhance the prospects of success in the peer-review system, and how to review papers.

#### First Timers' Meeting

2:00 – 2:45 p.m.

Attendees new to the AACCI Annual Meeting are encouraged to attend this short introduction to the meeting and the association and to meet key players in the management of both.



#### Plenary Speaker Johannes Keizer, Strategic Partnerships Lead in the GODAN Secretariat, Information Systems Officer at FAO of the United Nations

3:00 – 4:30 p.m.

GODAN (Global Open Data in Agriculture and Nutrition) is an initiative that has been set up to promote open data in the area of agriculture and nutrition. The presentation will analyze the meaning of open data and the different shades of openness that we encounter in reality. It will outline what GODAN does to develop the capacity of institutions that want to make their data open.

#### Grand Opening Exhibition

4:30 – 6:30 p.m.

Join the reception in the Exhibit Hall to discover the latest products and services that advance the work of our industry.

## MONDAY, OCTOBER 24

7:00 – 8:30 a.m.	<b>Technical Committee Meetings</b> Asian Products Bioactive Compounds Food Safety and Microbiology Molecular Biomarkers for Grain (and Pulses) Physical Testing Methods Pulse and Legume Vitamins, Minerals and Lipids	Grand E, Westin Grand B, Westin Grand D, Westin Grand F, Westin Riverscape, Westin Grand C, Westin Moorings, Westin Hall A, CC
7:00 – 11:00 a.m.	Poster Set-Up	Jasper Board Room, CC
7:00 a.m. – 5:30 p.m.	Speaker Ready Room Open	Rotunda, CC
7:30 a.m. – 6:30 p.m.	Registration Open	Tondee's Café, CC
7:30 a.m. – 6:30 p.m.	First Timers' Lounge Open	
	<b>Scientific Sessions</b>	
8:30 – 10:00 a.m.	Symposium: Sensory Approaches and New Methods for Developing Grain-Based Products	Oglethorpe, CC
8:30 – 10:15 a.m.	Technical: Analytical Measures for Cereal Chemistry Technical: Impact of Rheology on Product Quality Technical: Quality and Functionality in Various End-Use, Applicable Solutions	Room 200–201, CC Room 105–106, CC Room 203–205, CC
8:30 a.m. – 12:00 p.m.	Student Product Development Competition	Room 103–104, CC
8:30 a.m. – 5:00 p.m.	AACCI PRESS Bookstore Open	Rotunda, CC
9:00 – 10:00 a.m.	China Strategies Task Force Meeting	Pulaski, CC
10:00 – 11:30 a.m.	Scientific Advisory Panel Meeting	Harbor B, Westin
10:30 a.m. – 12:00 p.m.	<b>Scientific Sessions</b> Technical: Extrusion for Sustainable Quality and Nutrition Improvements Symposium: Mapping the Physical and Functional Attributes of Starches: Understanding the Impact of Starches on the Texture, Food Quality and Sensory Perception for Optimal Product Formulation Hot Topic: The New Labeling Regulations for Dietary Fiber: Facts, Challenges and Risks—How Will Your Label Change with Regard to Dietary Fiber Under the New Regulations Technical: Rice: From Field to Application	Room 200–201, CC Room 203–205, CC  Oglethorpe, CC
11:30 a.m. – 6:00 p.m.	Poster Viewing	Chatham AB, CC Hall A, CC
12:00 – 1:00 p.m.	Meet the <i>Cereal Chemistry</i> Editor	Rotunda, CC
12:00 – 1:30 p.m.	Milling & Baking Division Meeting and Networking Lunch* Nutrition Division Meeting and Lunch* Rice Division Lunch*	Room 100–101, CC Room 102, CC Greene Board Room, CC
1:00 – 1:45 p.m.	Student Association Business Meeting	Room 105-106, CC
1:30 – 3:00 p.m.	<b>Scientific Sessions</b> Symposium: Innovative Plant Proteins and Protein Derivatives: Production and Properties Hot Topic: Mitigating Flour Food-Safety Risks: Insights from the Recent Flour Recall Symposium: Novel Proteomics Approaches in Cereal Grain Research Symposium: Recent Advances on Structure-Function Relations of Rice and Rice-Based Food Technical: Researching Health Benefits of Grain and Components: Part 1 Food Safety, Quality, and Regulatory Committee Meeting	Oglethorpe, CC Room 203–205, CC  Chatham C, CC Room 200–201, CC
1:30 – 3:00 p.m.	Technical: Researching Health Benefits of Grain and Components: Part 1	Chatham AB, CC
3:00 – 6:00 p.m.	Food Safety, Quality, and Regulatory Committee Meeting	Riverscape, Westin
3:00 – 6:00 p.m.	Exhibit Hall Open	Hall A, CC
3:00 – 6:00 p.m.	Grain Exchange Presentations	Hall A, CC
4:00 – 5:00 p.m.	Beer & Posters : Student Authors Present	Hall A, CC
5:00 – 6:00 p.m.	Beer & Posters: Poster Authors Present (odd-numbered posters)	Hall A, CC
5:30 – 6:30 p.m.	Rheology Leadership Team Planning Meeting	Gwinnett Board Room, CC
6:00 – 6:30 p.m.	Carbohydrate Division Executive Committee Meeting	Room 100–101, CC
6:30 – 7:00 p.m.	Carbohydrate Division Meeting	Room 100–101, CC
7:00 – 9:30 p.m.	Cereals&Europe Section Dinner*	Midnight Sun Lounge, Westin
7:30 – 10:00 p.m.	Student Association Social and Dinner*†	Moon River Brewing

\* Ticket Required • † Offsite Location

## MONDAY HIGHLIGHTS

### Student Product Development Competition

8:30 a.m. – 12:00 p.m.

This competition highlights grain-based food product development skills and innovations from our up-and-coming scientists. Watch teams from California State University, Kansas State University, Louisiana State University, Texas A&M University, and Washington State University compete.

### Exhibits and Beer & Posters

3:00 – 6:00 p.m.

Return to the Exhibit Hall to continue your search for the latest products and services that advance the work of the industry. Grab a beer and meet with poster authors to discuss their research.

### Hot Topic: The New Labeling Regulations for Dietary Fiber: Facts, Challenges and Risks—How Will Your Label Change with Regard to Dietary Fiber Under the New Regulations?

10:30 a.m. – 12:00 p.m.

This session will address the intricacies of the Dietary Fiber Labeling Regulation and the current Status of their Implementation. Industry experts will discuss the impact of the regulations on ingredient suppliers and food product producers, large, small, and specialty. The added burdens of proving ingredient dietary fiber status, record keeping and analyses will be covered as well as the potential legal repercussions of non-compliance, whether intentional or not. Dietary fiber methodology currently is designed to accept international definitions of CODEX Alimentarius and most other countries, however it does not necessarily match the handling of dietary fiber for labeling purposes under new regulations. Therefore the question of international harmonization and commensurate methodology will be addressed.

## MONDAY SCIENTIFIC SESSIONS

Session number refers to abstract number on the mobile app and online. S = Symposium, O = Technical, W = Workshop.

### MONDAY MORNING

**Analytical Measures for Cereal Chemistry** • Technical • Room 200-201, CC

**Moderators:** Clothilde Baker, Campden BRI, Gloucestershire, United Kingdom; Daniel Wefers, Karlsruhe Institute of Technology, Karlsruhe, Germany

#### \*Phil Williams Applied Research Lecture Award

\*8:30 a.m. • 201-O

Developing Starch Products for Nutritional, Food, and Industrial Applications presented by Yon-Chen Shi, Kansas State University, Manhattan, KS, U.S.A.

8:45 a.m. • 202-O

The effect of starch composition on starch nanoparticles characteristics. R. SADEGHI (1), Z. Daniella (2), J. Kokini (1), S. Uzan (3) (1) Department of Food Science, College of Agriculture, Purdue University, west Lafayette, IN, U.S.A.; (2) Department of Food Science, College of Agriculture, Purdue University, U.S.A.; (3) 2 Department of Food Science and Nutrition, College of Agriculture, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL, U.S.A.

9:00 a.m. • 203-O

The link between starch molecular structure and its physical properties. R. ANDERSSON (1) (1) Department of Food Science, SLU, Uppsala, Sweden

9:15 a.m. • 204-O

Flour particle compactness and starch hydrolysis property. M. MARTINEZ (1), L. Roman (2), M. Gomez (2) (1) University of Valladolid/Purdue University, Palencia/West Lafayette, IN, U.S.A.; (2) University of Valladolid, Palencia, Spain

9:30 a.m. • 205-O

Pasting and cooking properties of aged high amylose rice affected by the changes of storage protein and starch. Y. HUANG (1), S. Jeng (2), H. Lai (1) (1) Department of Agricultural Chemistry, National Taiwan University, Taiwan; (2) Institute of Plant Biology, National Taiwan University, Taiwan

9:45 a.m. • 206-O

Pasting properties of dry bean powders from 25 Michigan-grown cultivars from two crop years. C. CAPPA (1), E. Gailey (2), J. Kelly (3), P. Ng (2) (1) Department of Food Science and Human Nutrition - Michigan State University, East Lansing, MI, U.S.A.; (2) Department of Food Science and Human Nutrition - Michigan State University, U.S.A.; (3) Department of Plant, Soil and Microbial Sciences - Michigan State University, U.S.A.

10:00 a.m. • 207-O

Genetic markers of wheat associated with flavor preference using a mouse model. A. KISZONAS (1), C. Morris (1) (1) USDA-ARS, Pullman, WA, U.S.A.

**Impact of Rheology on Product Quality** • Technical • Room 105-106, CC

**Moderators:** Mario Jekle, Technical University of Munich, Freising, Germany; Thiago Montagner, Oklahoma State University, Stillwater, OK, U.S.A.

#### \*Edith. A. Christensen Award

\*8:30 a.m. • 301-O

Laboratory Data (Mis)-Management presented by Wayne Moore, Moore Consulting, Tampa, FL, U.S.A.

8:45 a.m. • 302-O

Rheological properties of gums and starch nanoparticle blends as influenced by source, concentration and temperature. M. PEREZ HERRERA (1), T. Vasanthan (1) (1) University of Alberta, Edmonton, AB, Canada

9:00 a.m. • 304-O

Investigation of Fiber components and sources for physicochemical, rheological and thermomechanical properties. S. ALAVI (1), Q. Guo (1), C. SHARMA (1) (1) Kansas State University, Manhattan, KS, U.S.A.

9:15 a.m. • 305-O

Hydrocolloids effect on rheological and baking properties of proso millet composite dough. M. SINGH (1), A. Adedeji (1), P. Vijayakumar (1) (1) University of Kentucky, Lexington, KY, U.S.A.

**9:30 a.m. • 306-O**

High speed Z-arm mixing improves agreement with mixograph results and discrimination of gluten strength of HRW wheats. C. ISAAK (1), H. Sapirstein (1), R. Graf (2) (1) University of Manitoba, Winnipeg, MB, Canada; (2) Lethbridge Research Centre, Agriculture & Agri-Food Canada, Lethbridge, AB, Canada

**9:45 a.m. • 307-O**

Intermediate Wheatgrass (*Thinopyrum intermedium*) – a 360 ° evaluation. C. TYL (1), A. Marti (1), C. Gajadeera (1), A. Mathiowetz (1), B. Ismail (1) (1) University of Minnesota, U.S.A.

**10:00 a.m. • 308-O**

Starch-Gum Interactions in Gluten Free Sorghum Bread. P. AKIN ARI (1), R. Miller (1) (1) Kansas State University, U.S.A.; (2) Kansas State University, Manhattan, KS, U.S.A.

**Quality and Functionality in Various End-Use, Applicable Solutions • Technical • Room 203-205, CC**

**Moderators:** Crispin Howitt, CSIRO - Agriculture and Food, Canberra, ACT, Australia; Paridhi Gulati, University of Nebraska, Lincoln, NE, U.S.A.

**8:30 a.m. • 101-O**

β-Glucan structure and breakdown in different barley varieties during baking. S. DJURLE (1), A. Andersson (1), R. Andersson (1) (1) Swedish University of Agricultural Sciences, Sweden

**8:45 a.m. • 102-O**

Sprouted barley flour as a new ingredient for bread baking. Y. JIANG (1), L. Mo (1), G. Weaver (1), M. Martin (1), J. Hu (1), G. Guo (1) (1) Ardent Mills, U.S.A.

**9:00 a.m. • 103-O**

Barley limit dextrinase: Determinants of substrate specificity and sensitivity to the endogenous proteinaceous inhibitor. B. SVENSSON (1), S. Andersen (2), M. Møller (2), T. Olsen (2), S. Olesen (2), I. André (3) (1) Enzyme and Protein Chemistry, Dept Systems Biology, Technical University of Denmark, Lyngby, Denmark; (2) Enzyme and Protein Chemistry, Dept. Systems Biology, Technical University of Denmark, Lyngby, Denmark; (3) Dept. Biochem. Struct. Biol., Lund University, Lund, Sweden

**9:15 a.m. • 104-O**

Study on the sensory evaluation methods of Lanzhou Hand-extended Noodles. Y. XING (1), Y. Zhang (1), Y. Kong (1), M. Li (1), B. Zhang (1), N. Tang (1), Y. Wei (2) (1) Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences, China; (2) Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences/ Key Laboratory, China

**9:30 a.m. • 105-O**

An investigation of the quality and functionality of gluten free mixes available on the UK market. V. STOJICESKA (1) (1) Brunel University London, London, United Kingdom

**9:45 a.m. • 106-O**

How comprehensive does protein quality data need to be to predict gluten strength in a population of bread wheats? H. SAPIRSTEIN (1), C. Isaak (1), R. Graf (2) (1) University of Manitoba, Winnipeg, MB, Canada; (2) Agriculture & Agri-Food Canada, Lethbridge, AB, Canada

**10:00 a.m. • 107-O**

Characterization of soy protein films with a durable water resistance-adjustable and antimicrobial surface. Q. LIU (1), S. Li (2), H. Xiao (3), M. Thompson (4), Y. Zhang (5), C. Rempel (6) (1) Agriculture and Agri-Food Canada, Guelph, ON, Canada; (2) Agriculture and Agri-Food Canada, Canada; (3) University of New Brunswick, Canada; (4) McMaster University, Canada; (5) University of Manitoba, Canada; (6) Canola Council of Canada, Canada

**Sensory Approaches and New Methods for Developing Grain-Based Products • Symposia • Oglethorpe, CC**

**Organizer:** Kristine Downing Wilke, The Kellogg Company, Battle Creek, MI, U.S.A.; Natalie Stoer, General Mills, Inc., U.S.A  
**Sponsoring Committee:** Society of Sensory Professionals

**8:40 a.m. • 102-S**

Perception dynamics of grain-based ready-to-eat cereal products using TCATA. J. CASTURA (1) (1) Compusense Inc., Guelph, ON, Canada

**9:05 a.m. • 103-S**

Harmonizing Sensory Attributes with Nutrition Claims and Emotional Benefits for Ready-To-Eat Cereals: A Case Study. G. CIVILLE (1), A. Retivaeu-Krogmann (1), E. Toronto-Doyle (1), I. Koelliker (1) (1) Sensory Spectrum, Inc., New Providence, NJ, U.S.A.

**9:30 a.m. • 104-S**

The relevance of flavor complexity to consumer acceptability of food products. S. HOOGE (1), C. Uy (1), S. Pecore (2) (1) General Mills, Inc., Minneapolis, MN, U.S.A.; (2) P & D Consulting LLC, Pasadena, CA, U.S.A.

**The New Labeling Regulations for Dietary Fiber: Facts, Challenges and Risks - How will your Label Change with Regard to Dietary Fiber Under the New Regulations? • Hot Topic • Oglethorpe, CC**

**Organizer:** AACCI Dietary Fiber and Other Carbohydrates Committee with Jon DeVries, DeVries & Associates, Coon Rapids, MN, U.S.A.

**Sponsor:** Medallion Laboratories

Introduction - Jon DeVries, DeVries & Associates, Minnesota, U.S.A., Moderator

**10:40 a.m.**

The Nutrition Facts Label: Updated Regulations for Dietary Fiber. Paula Trumbo PhD, US Food and Drug Administration-Supervisory Biologist, Center for Food Safety and Nutrition, Office of Nutrition and Food (s).

**11:10 a.m.**

Measuring dietary fiber under the new regulations: navigating the intact and intrinsic, isolated, or synthetic course. David Plank, Senior Technical Manager, Medallion Laboratories; Senior Research Fellow, Dept. of Food Science and Nutrition, University of Minnesota, U.S.A.

**11:30 a.m.**

Dietary Fiber: Citizen Petitions, Class Actions and Beyond. George Salmas, Managing Principal, The Food Lawyers®, Los Angeles, CA, U.S.A.

More details are available through the mobile app.

**Extrusion for Sustainable Quality and Nutrition Improvements • Technical • Room 200-201, CC**

**Moderators:** Christina Rosell, IATA – CSIC, Paterna, Valencia, Spain; Mario Martinez, Purdue University, West Lafayette, IN, U.S.A.

**10:30 a.m. • 401-O**

Role of extrusion in reducing anti-nutritional factors in cereal and legume based fortified blended foods. S. ALAVI (1), Q. Guo (1), B. Lindshield (1), M. Joseph (1) (1) Kansas State University, U.S.A.; (2) Kansas State University, Manhattan, KS, U.S.A.; (3) Kansas State University, KS, U.S.A.

**10:45 a.m. • 402-O**

Impacts of extrusion with gum arabic and xanthan gum on physical properties and starch digestibility of dry bean powders. Y. AI (1), I. Coletta (2), P. Ng (2) (1) University of Saskatchewan, Saskatoon, Canada; (2) Michigan State University, East Lansing, MI, U.S.A.

**11:00 a.m. • 403-O**

Multi-scale starch disassembling masks the effect of a highly branched structure on the digestion rate of extruded flour. L. ROMÁN (1), M. Martínez (2), C. Rosell (3), M. Gómez (1) (1) College of Agricultural Engineering, University of Valladolid, Palencia, Spain; (2) Whistler Center for Carbohydrate Research, Department of Food Science, Purdue University, West Lafayette, IN, U.S.A.; (3) Institute of Agrochemistry and Food Technology (IATA-CSIC), Paterna, Spain

**11:15 a.m. • 404-O**

Extruded Corn Soy binary blend: physicochemical and molecular characterization. S. ALAVI (1), R. Setia (1), H. Vikhona (1), K. Sharma (1), M. Joseph (1), Q. Guo (2) (1) Kansas State University, Manhattan, KS, U.S.A.; (2) Kansas State University, U.S.A.

**11:30 a.m. • 405-O**

Physical and chemical changes experienced by waxy wheat flour inside a twin screw extruder. R. KOWALSKI (1), C. Morris (2), G. Ganjyal (3) (1) Washington State University, Pullman, WA, U.S.A.; (2) USDA-ARS, U.S.A.; (3) Washington State University, U.S.A.

**11:45 a.m. • 406-O**

Sorghum based extruded and pre-cooked bean analog- A solution for Food Security in Sub-Saharan Africa. E. CLARK (1), F. Madeira (2), C. Mante (3), A. Bara (4), H. Wireman (4), L. Pelembe (2), S. Alavi (5) (1) Food Science Institute, U.S.A.; (2) University of Eduardo Mondlane, Mozambique; (3) University of Limpopo, South Africa; (4) University of Punjab, India; (5) Kansas State University, U.S.A.

**Mapping the Physical and Functional Attributes of Starches: Understanding the impact of Starches on the Texture, Food Quality and Sensory Perception for Optimal Product Formulation • Symposia • 203-205, CC**

**Organizer:** Penny Patton, Tate & Lyle, Hoffman Estates, IL, U.S.A.  
**Moderators:** Penny Patton, Tate & Lyle, Hoffman Estates, IL, U.S.A. and Amber Kaiser, NDSU, North Dakota, U.S.A.

**10:30 a.m. • 201-S**

Understanding starch swelling behavior and how it impacts functional and sensory properties of food systems. L. HOWARTH (1), J. Smythe (1), R. Wicklund (1), J. Whaley (1) (1) Tate & Lyle, Hoffman Estates, IL, U.S.A.

**10:45 a.m. • 202-S**

Designing novel starch-based texturizers for snack applications that drive consumer acceptance. R. WICKLUND (1) (1) Tate & Lyle, Hoffman Estates, IL, U.S.A.

**11:00 a.m. • 203-S**

Improving pasting and textural properties of waxy wheat flour and starch by chemical and physical modifications. Y. SHI (1), S. Garimella Purna (1), L. Guan (1) (1) Kansas State University, Manhattan, KS, U.S.A.

**11:15 a.m. • 204-S**

Designing starch based textures using extrusion. J. KOKINI (1) (1) Purdue University, West Lafayette, IN, U.S.A.

**11:30 a.m. • 205-S**

Advances in the use of starch for imparting fat-like texture to foods. Y. YAO (1), X. Peng (2) (1) Purdue University, West Lafayette, IN, U.S.A.; (2) Purdue University, U.S.A.

**Rice: From Field to Application • Technical • Chatham AB, CC**

**Moderators:** Lauren Brewer, General Mills, Minneapolis, MN, U.S.A.; Filiz Koksel, University of Manitoba, Winnipeg, MB, Canada

**10:30 a.m. • 501-O**

QSorter: A fast and repeatable method for quality inspection and grading of rice. F. Dell'Endice (1) (1) QualySense AG, Switzerland

**10:45 a.m. • 502-O**

Experimental simulation of cross-flow rice drying: moisture content and milling yield profiles. S. MUKHOPADHYAY (1), T. Siebenmorgen (1) (1) University of Arkansas, Fayetteville, AR, U.S.A.

**11:00 a.m. • 503-O**

Digestibility and physicochemical properties of rice being parboiled combined with heat moisture treatment. A. YEH (1), K. Cheng (1) (1) National Taiwan University, TAIPEI, Other, Taiwan

**11:15 a.m. • 504-O**

Effects of cooled storage conditions on milling yields and color properties of parboiled rice. K. WILKES (1), T. Siebenmorgen (1) (1) University of Arkansas, Fayetteville, AR, U.S.A.

**11:30 a.m. • 505-O**

Characterization of temperature and quality profiles of rice dried using microwaves for multiple bed thicknesses. D. Smith (1), G. ATUNGULU (2), G. Olatunde (2), S. Sadaka (2) (1) The University of Arkansas, Fayetteville, AR, U.S.A.; (2) The University of Arkansas, U.S.A.

**11:45 a.m. • 506-O**

One-pass drying of rough rice with 915 mHz industrial microwave vs. degree of milling and milled rice quality. G. ATUNGULU (1), G. Olatunde (2) (1) University of Arkansas, U.S.A.; (2) University of Arkansas Division of Agriculture, U.S.A.

**MONDAY AFTERNOON**

**Mitigating Flour Food-Safety Risks: Insights from the Recent Flour Recall • Hot Topic • Room 203-205, CC**

A timely session to address this new industry challenge. Presenters are being invited to provide their perspectives followed by an open forum discussion.

More details are available through the mobile app.

**Innovative Plant Proteins and Protein Derivatives: Production and Properties • Symposia • Oglethorpe, CC**

**Organizer:** Bram Pareyt, Puratos NV, Groot-Bijgaarden, Belgium  
**Moderators:** Nesli Sozer, VTT Technical Research Centre, Espoo, Finland and Katharina Scherf, Deutsche Forschungsanstalt für Lebensmittelchemie, Leibniz Institut, Germany  
**Sponsoring Committee:** Protein Division

**1:30 p.m. • 301-S**

Applicability of plant proteins and protein-rich agro side-streams towards cereal foods. N. SOZER (1) (1) VTT, Espoo, Finland

**1:45 p.m. • 302-S**

Physical modifications of plant protein for new and improved functionality. L. CHEN (1) (1) University of Alberta, Edmonton, AB, Canada

**2:00 p.m. • 303-S**

Air-water interfacial properties of enzymatic wheat gluten hydrolyzates determine their foaming behavior. K. BRIJS (1), A. Wouters (2), E. Fierens (2), I. Rombouts (2), C. Blecker (3), J. Delcour (2) (1) KU Leuven, Heverlee, Belgium; (2) KU Leuven, Belgium; (3) University of Liege, Belgium

**2:15 p.m. • 304-S**

Upgrading cereal side stream proteins for food use. E. NORD-LUND (1) (1) VTT, Espoo, Finland

**2:30 p.m. • 305-S**

Unlocking the Full Potential of Legume Proteins. L. POUVREAU, NIZO Food Research, Ede, Gelderland, Netherlands

**Novel Proteomics Approaches in Cereal Grain Research • Symposia • Chatham C, CC**

**Organizer:** Katharina Scherf, Deutsche Forschungsanstalt fuer Lebensmittelchemie, Freising, Germany

**Moderators:** Peter Koehler, Deutsche Forschungsanstalt fuer Lebensmittelchemie, Freising, Germany and Jayne Bock, C.W. Brabender Instruments, Inc., Cincinnati, OH, U.S.A.

**Sponsoring Committee:** Protein Division

**1:30 p.m. • 501-S**

Targeted proteomic approaches for detection of CD-specific epitopes. T. AMERICA (1), H. van den Broeck (1), J. Cordewener (1), L. Gilissen (1), I. van der Meer (1) (1) Plant Sciences Group - Wageningen UR, Wageningen, Netherlands

**1:45 p.m. • 502-S**

Barley grain proteomics: Current status and future prospects. C. FINNIE (1), A. Sultan (2), B. Andersen (3), G. Barba-Espín (2), P. Dedvisitsakul (2), P. Häggglund (2), B. Svensson (2) (1) Carlsberg Laboratory, Copenhagen, Denmark; (2) Enzyme and Protein Chemistry, Department of Systems Biology, Technical University of Denmark, Denmark; (3) Agricultural and Environmental Proteomics, Department of Systems Biology, Technical University of Denmark, Denmark

**2:00 p.m. • 503-S**

The Age of -omics: Enabling Trait Selection in Wheat Variety Development. C. MILLER (1) (1) Heartland Plant Innovations, Manhattan, KS, U.S.A.

**2:15 p.m. • 504-S**

Proteomics approaches for gluten and allergen analysis. K. SCHERF (1), P. Koehler (1) (1) Deutsche Forschungsanstalt fuer Lebensmittelchemie, Freising, Germany

**2:30 p.m. • 505-S**

A grain of truth: Using proteomics to elucidate grain protein composition. M. COLGRAVE (1), K. Byrne (1), H. Goswami (1), S. Heidelberger (2), C. Lane (2), M. Blundell (1), G. Tanner (1) (1) CSIRO Agriculture, Australia; (2) AB SCIEX, United Kingdom

**Recent Advances on Structure-Function Relations of Rice and Rice-Based Food • Symposia • 200-201, CC**

**Organizer:** Jinsong Bao, Zhejiang University, Hangzhou, China

**Moderators:** Jinsong Bao, Zhejiang University, Hangzhou, China and John Manful, Africa Rice Center, Cotonou, Benin

**Sponsoring Committee:** Rice Division

**1:30 p.m. • 401-S**

Effects of rice variety and milling method on the quality of Chinese traditional fermented rice noodles. S. ZHOU (1), L. Tong (1) (1) Institute of Agro-Products Processing Science and Technology, Chinese Academy of Agricultural Sciences, Beijing, China

**1:45 p.m. • 402-S**

Importance of feedstock and soaking conditions on parboiled rice quality. Y. WANG (1) (1) Department of Food Science, University of Arkansas, Fayetteville, AR, U.S.A.

**2:00 p.m. • 403-S**

Enhancing the health-beneficial qualities of whole grain rice. M. CHEN (1), B. Min (2), C. Bergman (3), A. McClung (1), S. Pinson (1) (1) Dale Bumpers National Rice Research Center, Stuttgart, AR, U.S.A.; (2) Univ. Maryland East Shore, Princess

Anne, MD, U.S.A.; (3) University of Nevada, Las Vegas, Las Vegas, NV, U.S.A.

**2:15 p.m. • 404-S**

Sensory quality of cooked rice as affected by degree of milling. L. CHANG (1), X. Duan (2), S. Ouyang (2) (1) Academy of State Administration of Grain, Beijing, China; (2) Academy of State Administration of Grain, China

**2:30 p.m. • 405-S**

What are the technological keys for producing a steam-cooked bread (Ablo) from rice. C. MESTRES (1), M. Hounghbedji (2), M. Hounsou (2), Y. Madodé (2), B. Matignon (3), L. Dahdouh (3), N. Akissoé (2), J. Hounhouigan (2) (1) CIRAD/QualiSud, Montpellier, France; (2) UAC/FSA, Benin; (3) CIRAD/QualiSud, France

**Researching Health Benefits of Grain and Components: Part 1 • Technical • Chatham AB, CC**

**Moderators:** Alecia Kiszonas, USDA-ARS WWQL, Pullman, WA, U.S.A.; Catrin Tyl, University of Minnesota, Minneapolis, MN, U.S.A.

**1:45 p.m. • 602-O**

Effect of consuming oat bran mixed in water before a meal on glycemic responses in healthy humans. R. STEINERT (1), K. Prudence (1), R. Duss (1), D. Raederstoff (1), T. Wolever (2) (1) DSM Nutritional Products, Switzerland; (2) Glycemic Index Laboratories, Inc., Toronto, Ontario, Canada

**2:00 p.m. • 603-O**

Sorghum and quinoa: health benefits and implications for future research. T. SIMNADIS (1), L. Tapsell (2), E. Beck (2) (1) University of Wollongong, Wollongong, Australia; (2) University of Wollongong, Australia

**2:15 p.m. • 604-O**

Determination of protein quality assessed by both in vivo and in vitro methodology in soy and cereals. A. FRANCZYK (1), M. Nosworthy (1), G. Medina (1), J. Neufeld (1), Y. Arcand (2), S. Ribéreau (2), J. House (1) (1) University of Manitoba, Winnipeg, MB, Canada; (2) Agriculture and Agri-Food Canada, Food R&D Centre, St-Hyacinthe, QC, Canada

**2:30 p.m. • 605-O**

Reduced protein digestibility of heated proso millet flour is prevented in the presence of urea. P. GULATI (1), D. Rose (2) (1) University of Nebraska-Lincoln, Lincoln, NE, U.S.A.; (2) University of Nebraska-Lincoln, U.S.A.

**2:45 p.m. • 606-O**

Development of an industrial method for production of low phytic acid, high soluble fiber content whole wheat bread. H. KOKSEL (1), A. Ilkbahar (2), M. Sanli (2), H. Tumer (2), M. Kaynar (2), E. Aktas Akyildiz (3) (1) Hacettepe University, Turkey; (2) Ankara Metropolitan Municipality Bread Factory, Turkey; (3) Corum University, Turkey

**Monday, October 24****Noon to 1:00 p.m. in AACCI Central****Meet the Editor**

Les Copeland took over as the Editor-in-Chief of *Cereal Chemistry* in 2016 and is keen to meet contributors and potential contributors to the journal. He will give a brief overview on the journal's operations, including its objectives, scope and manuscript handling and peer-review processes. This will be followed by an opportunity to ask questions and give feedback about the journal and on publishing science more generally.

## TUESDAY, OCTOBER 25

7:00 – 8:30 a.m.	Past Presidents' Breakfast	Harbor B, Westin
7:00 – 8:30 a.m.	<b>Technical Committee Meetings</b> Bread Baking Methods Experimental Milling Oat and Barley Products Rice Milling and Quality Soft Wheat and Flour Products Spectroscopic Methods Yeast Evaluation	Riverscape, Westin Grand F, Westin Grand C, Westin Moorings, Westin Grand E, Westin Grand D, Westin Grand B, Westin Rotunda, CC
7:30 a.m. – 5:30 p.m.	Registration Open	Tondee's Café, CC
7:30 a.m. – 5:30 p.m.	First Timers' Lounge Open	Hall A, CC
8:00 a.m. – 2:15 p.m.	Poster Viewing	Greene Board Room, CC
8:30 – 10:00 a.m.	Section Leadership Meeting	
8:30 – 10:00 a.m.	<b>Scientific Sessions</b> Hot Topic: Food Safety Modernization Act (FSMA) Regulations and Their Impact Technical: Researching Health Benefits of Grain and Components: Part 2 Symposium: The Statistics of Sampling, Analytical Methods Development and Experimentation Symposium: Understanding the Nutritional & Functional Benefits of Pulses Flours & Fibre	Oglethorpe, CC Room 200–201, CC Room 203–205, CC Chatham C, CC
8:30 – 11:00 a.m.	Best Student Research Paper Competition	Room 103–104, CC
8:30 a.m. – 5:00 p.m.	AACCI PRESS Bookstore Open	Rotunda, CC
10:00 – 10:30 a.m.	Nutrition Division Networking Break	Room 101, CC
10:00 – 11:00 a.m.	Awards Committee Meeting	Room 102, CC
10:30 – 11:30 a.m.	Exhibitor Advisory Meeting	Room 100, CC
10:30 a.m. – 12:00 p.m.	<b>Scientific Sessions</b> Workshop: Developing Our Future Leaders: Bringing Your Best Self to the Table Hot Topic: GM Food Labeling: Inside the Controversy Technical: Practical Applications for Classic Dough Systems Symposium: Protein Trends and Technologies: Health, Regulatory and Formulation Challenges Symposium: Pulses as Ingredients in Innovative Food Applications: Physicochemical and Nutri-Functional Attributes	Room 105–106, CC Room 203–205, CC Room 200–201, CC Oglethorpe, CC Chatham C, CC
11:00 a.m. – 12:00 p.m.	Professional Development Panel Meeting	Pulaski, CC
12:00 – 2:15 p.m.	<b>Lunch and Ice Cream with Exhibitors</b>	Hall A, CC
12:30 – 2:30 p.m.	Approved Methods Technical Committee Chairs Lunch	Harbor B, Westin
1:00 – 2:00 p.m.	Poster Authors Present (even-numbered posters)	Hall A, CC
2:30 – 3:30 p.m.	Division Leadership Council Meeting	Room 102, CC
2:30 – 3:30 p.m.	Foundation Board Meeting	Harbor A, Westin
2:30 – 4:00 p.m.	<b>Scientific Sessions</b> Symposium: Dietary Fiber in the Food Industry: A Role for Psyllium? Technical: Functionality of Novel Grains, Pulse and Components Symposium: The Future of Food Safety Symposium: Wheat Quality—What Is It and How Have We Been Measuring It?	Oglethorpe, CC Room 200–201, CC Chatham AB, CC Room 203-205, CC Hall A, CC
2:30 – 6:00 p.m.	Exhibit and Poster Take-Down	Room 103-104, CC
4:00 – 5:00 p.m.	What's New?—Open Member Forum with Your AACCI Board of Directors	Greene Board Room, CC
4:30 – 5:30 p.m.	Biotechnology Division Business Meeting	Room 102, CC
4:30 – 5:30 p.m.	Protein Division Business Meeting	Grand Ballroom C, Westin
5:00 – 6:00 p.m.	Speed Mentoring Social*	Room 101, CC
5:30 – 6:30 p.m.	Biotechnology and Protein Division Joint Social*	Vic's on the River
6:30 – 9:30 p.m.	Carbohydrate Division Dinner*†	Midnight Sun Lounge, Westin
9:00 – 10:30 p.m.	<b>After Glow Reception*</b>	

\* Ticket Required • † Offsite Location

## TUESDAY HIGHLIGHTS

### Hot Topic: Food Safety Modernization Act (FSMA) Regulations and Their Impact

8:30 – 10:30 a.m.

FSMA was signed into law in 2011. Five years later, 11 Final Rules are in place with the industry on a timeline to comply. An overview of the entire act and rules will be given, followed by a case study that highlights why prevention is the focus.

### Best Student Research Paper Competition

8:30 – 11:00 a.m.

Sponsored by AACCI Foundation, General Mills, and Kellogg Co., this competition highlights the best research conducted and presented by students and offers an opportunity for students to interact with the AACCI community at an early stage in their career. Watch Cassie Anderson, Audrey Girard, Jessica Murray, Luis Sabillon, Kathrin Schalk, and Yunus Tuncil compete.

### Hot Topic: GM Food Labeling: Inside the Controversy

10:30 a.m. – 12:00 p.m.

The GM labeling law is a change for U.S. companies and U.S. consumers. This hot topic session will cover the choices and discuss the status of the rules for packaging, including how we measure and manage, what are the benefits, and more.

### Workshop: Developing Our Future Leaders: Bringing Your Best Self to the Table

10:30 a.m. – 12:00 p.m.

In cereal disciplines, it is important to have strong technical representatives with strong scientific knowledge, excellent communication skills, and the confidence to be bold. In this workshop, academic and industrial professional experts will provide knowledge on soft skills that students will not pick up from course work.

### Lunch and Ice Cream with the Exhibitors

12:00 – 2:15 p.m.

Have lunch and dessert while taking the opportunity for a final chance to talk with exhibitors and view posters. Sponsored by Church & Dwight Co., Inc.

### What's New?—Open Member Forum with Your AACCI Board of Directors

4:00 – 5:00 p.m.

The AACCI Board of Directors invites you to join them to learn about current strategies and priorities for AACCI. Hear how we are growing global outreach, achieving science and technology leadership, and building organizational engagement.

### Speed Mentoring Social

5:00 – 6:00 p.m.

Through a series of quick exchanges with multiple contacts, you'll have the chance to seek career and research guidance and potentially find a long-term mentor. Light appetizers provided. Preregistration is required.

### After Glow Reception

9:00 – 10:30 p.m.

Join us poolside at the Westin to mix and mingle with your peers. Sponsored by AACCI Milling & Baking Division and The Mennel Milling Company.



## Trusted Testing Solutions For 100 Years

### Testing For The Food & Feed Industry

- ♦ The right testing protocol for your food and feed analysis.
- ♦ The most cost-effective solution (only the tests you need).
- ♦ A personal commitment to work in partnership with you.



Put Us To The Test



[www.npal.com](http://www.npal.com)

800.423.6832

## TUESDAY SCIENTIFIC SESSIONS

Session number refers to abstract number on the mobile app and online. S = Symposium, O = Technical, W = Workshop.

### TUESDAY MORNING

#### Food Safety Modernization Act (FSMA) Regulations and Their Impact • Hot Topic • Oglethorpe, CC

**Organizer:** Barb Heidolph, Innophos, Inc., Cranbury Township, NJ, U.S.A.; AACCI Food Safety Quality Regulatory Committee

**Moderators:** Barb Heidolph, Innophos, Inc. U.S.A.; Jan Levenhagen, The Mennel Milling Company, U.S.A.

The Milling Industry Confronts Allergen Cross-Contact in the Wheat Supply Chain. James A. McCarthy, North American Millers' Association, Washington, DC, U.S.A.

E. coli in Flour – Inside the Recall. Scott Hood, General Mills, Minneapolis, MN, U.S.A.

Sanitary Transportation of Human and Animal Food Rule – TBA Environmental Monitoring Programs. Kantha Channaiah, AIB International

Validation and Verification FSMA requirement for Preventative Controls. Jenny Scott, FDA CFSAN

#### Researching Health Benefits of Grain and Components: Part 2 • Technical • Room 200-201, CC

**Moderators:** Frederick Felker, USDA/ARS/NCAUR, Peoria, IL, U.S.A.; Ilce Medina Meza, Washington State University, Pullman, WA, U.S.A.

#### 8:30 a.m. • 621-O

Effect of deflavouring on the in vitro and in vivo protein quality of pea, lentil and faba bean protein concentrates. M. NOSWORTHY (1), A. Franczyk (1), J. Neufeld (1), J. House (1) (1) University of Manitoba, Winnipeg, MB, Canada

#### 8:45 a.m. • 622-O

The role of phytate in the antioxidant effect of cereal beta-glucans. Y. WANG (1), N. Maina (1), A. Lampi (1), P. Ekholm (1), T. Sontag-Strohmann (1) (1) University of Helsinki, Helsinki, Finland

#### 9:00 a.m. • 623-O

Dietary carotenoids of corn fractions do not seem to affect the development of atherosclerotic lesions. in LDL-r-KO mice K. Masisi (1), K. Le (2), N. Ghazzawi (3), T. Paestch (4), T. BETA (1), M. Moghadasian (4) (1) Department of Food Science, University of Manitoba, Winnipeg, MB, Canada; (2) Canadian Centre for Agri-Food Research in Health and Medicine, University of Manitoba, Winnipeg, Manitoba, Canada, Winnipeg, MB, Canada; (3) Department of Human Nutritional Sciences, University of Manitoba, Winnipeg, MB, Canada; (4) Department of Human Nutritional Sciences, University of Manitoba, Winnipeg, MB, Canada

#### 9:15 a.m. • 624-O

Impact of dietary pattern of the fecal donor on in vitro fecal fermentation properties of whole grains and brans. S. BRAHMA (1), D. ROSE (2) (1) University of Nebraska Lincoln, Lincoln, NE, U.S.A.; (2) UNIVERSITY OF NEBRASKA LINCOLN, U.S.A.

#### 9:30 a.m. • 625-O

The good side of sprouting. A. MARTI (1), G. Cardone (1), A. Nicolodi (2), L. Quaglia (3), M. Pagani (1) (1) University of Milan, Milan, Italy; (2) BOKU-University of Natural Resources and Life Sciences, Vienna, Austria; (3) Molino Quaglia, Italy

#### 9:45 a.m. • 626-O

In Vivo Digestibility of Cross-Linked Phosphorylated (RS4) Wheat Starch in Ileostomy Subjects. C. MANINGAT (1), J. Lim (2), J. Muir (2), M. Iacovou (2), A. Bogatyrev (2), E. Ly (2), P. Seib (3) (1) MGP Ingredients, Inc., Atchison, KS, U.S.A.; (2) Monash University, Australia; (3) Kansas State University, Manhattan, KS, U.S.A.

#### The Statistics of Sampling, Analytical Methods Development and Experimentation • Symposia • Room 203-205, CC

**Organizers:** Simon Penson, Campden, BRI, Chipping Campden, UK and Michelle Manderfeld, General Mills, Minneapolis, MN, U.S.A.

**Moderators:** Simon Penson, Campden, BRI, Chipping Campden, UK and Michelle Manderfeld, General Mills, Minneapolis, MN, U.S.A.

**Sponsoring Committees:** Grain and Flour Testing Technical Committee and Statistical Advisory Committee

#### 8:30 a.m. • 701-S

Introduction: Practical Implications of Getting Sampling Wrong. S. PENSON (1), S. Penson (1) (1) Campden BRI, Chipping Campden, United Kingdom

#### 8:45 a.m. • 702-S

Statistical Methods to Evaluate the Risks of Misclassifying Lots by Mycotoxin Sampling Plans. T. WHITAKER (1) (1) North Carolina State University, Raleigh, NC, U.S.A.

#### 9:00 a.m. • 703-S

Development of the FAO Mycotoxin Sampling Tool to Evaluate Risks of Misclassifying Lots with Mycotoxin Sampling Plans. T. WHITAKER (1) (1) North Carolina State University, Raleigh, NC, U.S.A.

#### 9:15 a.m. • 704-S

So, You Want a New Analytical Method? Past & Modern Day Considerations in Co-Lab Set-Up and Data Analysis. T. NELSEN (1) (1) Independent Consultant, Port Byron, IL, U.S.A.

#### 9:30 a.m. • 705-S

What are you trying to learn? Study Designs and The Appropriate Analysis For Your Research Question. A. KISZONAS (1) (1) USDA/ARS, Pullman, WA, U.S.A.

#### Understanding the Nutritional & Functional Benefits of Pulses Flours & Fibre • Symposia • Chatham C, CC

**Organizer:** Margaret Hughes, Best Cooking Pulses Inc., Portage la Prairie, MB, Canada

**Moderators:** Margaret Hughes, Best Cooking Pulses, Portage la Prairie, MB, Canada and Linda Malcolmson, Best Cooking Pulses, Portage la Prairie, MB, Canada

**Sponsoring Committee:** Pulse & Legume Technical Committee

#### 8:30 a.m. • 801-S

The effects of extruded pulse products on post-prandial glycemia and satiety. R. MOLLARD (1), A. Johnston (2), N. Ames (3), D. Bouchard (4), J. Curran (5), P. Jones (2) (1) Richardson Centre for Functional Foods & Nutraceuticals, University of Manitoba, Winnipeg, Canada; (2) University of Manitoba, Winnipeg, MB, Canada; (3) Agriculture and Agri-Food Canada, Winnipeg, MB, Canada; (4) University of New Brunswick, NB, Canada; (5) Pulse Canada, Winnipeg, MB, Canada

**8:45 a.m. • 802-S**

Pea hull fiber modulation of gastrointestinal function and fecal microbiota. W. DAHL (1), A. Ford (2), Y. Salmean (2) (1) University of Florida, Gainesville, FL, U.S.A.; (2) University of Florida, U.S.A.

**9:00 a.m. • 803-S**

The carbohydrate digestion rate of navy bean flours measured in vitro: the role of particle size and processing. B. LUHOVYY (1), A. Hamilton (1), P. Kathirvel (1), H. Mustafaalsaafin (1), J. Gallant (1) (1) Mount Saint Vincent University, Halifax, NS, Canada

**9:15 a.m. • 804-S**

Functional attributes of pulse flours and flour constituents. R. TYLER (1), A. Lamb (2), A. Singhal (1), R. Peter (1), M. Nickerson (1) (1) University of Saskatchewan, Saskatoon, SK, Canada; (2) University of Saskatchewan, Saskatchewan, SK, Canada

**9:30 a.m. • 805-S**

Real-time monitoring of the effect of pea fibre addition and its particle size on dough proofing potential. M. SCANLON (1), A. Shum (2), A. Strybulevych (3), J. Page (3) (1) University of Manitoba, Winnipeg, Canada; (2) Food Science, University of Manitoba, Canada; (3) Physics & Astronomy, University of Manitoba, Canada

**Best Student Paper Competition • Symposia • Room 103-104, CC**

**Organizer:** Professional Development Panel, Sean Finnie, PDP, Chair, Bay State Milling, Hopkins, MN, U.S.A.

**Moderators:** John Mathew, Frito-Lay Inc., Plano, TX, U.S.A. and Justin French, PepsiCo Global R&D, Plano, TX, U.S.A.

**10:10 a.m. • 605-S**

Novel approach to the analysis of gluten by mass spectrometry. K. SCHALK (1), P. Koehler (2), K. Scherf (2) (1) Deutsche Forschungsanstalt Fur Lebensmittelchemie (DFA), Freising, Germany; (2) Deutsche Forschungsanstalt für Lebensmittelchemie (DFA), Germany

**10:35 a.m. • 606-S**

Human colon bacteria show substrate dependent hierarchical preference to dietary fibers, with structure determining rank. Y. E. TUNCIL (1), Y. Xiao (2), N. Porter (2), B. Reuhs (3), E. Martens (2), B. Hamaker (3) (1) Purdue University, West Lafayette, IN, U.S.A.; (2) University of Michigan Medical School, U.S.A.; (3) purdue university food science, west lafayette, IN, U.S.A.

**8:30 a.m. • 601-S**

Arabinoxylans from cereal processing byproducts as a basis for biodegradable food packaging. C. ANDERSON (1), S. Simsek (2), L. Jiang (3) (1) North Dakota State University, Department of Plant Sciences, Fargo, ND, U.S.A.; (2) North Dakota State University, Department of Plant Sciences, Fargo, ND, U.S.A.; (3) North Dakota State University, Department of Mechanical Engineering, Fargo, ND, U.S.A.

**8:55 a.m. • 602-S**

Effect of proanthocyanidin MW profile on dough rheology. A. GIRARD (1), J. Awika (1), E. Castell-Perez (1) (1) Texas A&M University, College Station, TX, U.S.A.

**9:20 a.m. • 603-S**

Influence of soft kernel texture on the flour and baking quality of durum wheat. J. MURRAY (1), A. Kiszonas (2), C. Morris (2) (1) Western Wheat Quality Laboratory, Pullman, WA, U.S.A.; (2) USDA WWQL, Pullman, WA, U.S.A.

**9:45 a.m. • 604-S**

Pre-milling interventions to reduce the microbial load of wheat grain with minimal impact on flour functionality. L. SABILLÓN GALEAS (1), A. Bianchini (1), J. Stratton (1), D. Rose (1) (1) University of Nebraska - Lincoln, Lincoln, NE, U.S.A.

**GM Food Labeling: Inside the Controversy • Hot Topic • Room 203-205, CC**

**Moderators:** Ray Shillito, Bayer CropScience LP, Morrisville, NC, U.S.A. and Anne Bridges, AACCI International, St. Paul, MN, U.S.A.

**Organizers:** AACCI Molecular Biomarkers Technical Committee

**Featuring:**

Denzel McGuire, EVP of Government Affairs, GMA

Craig A. Morris, Ph.D., Deputy Administrator, Livestock, Poultry and Seed Program

**Developing Our Future Leaders: Bringing Your Best Self to the Table • Workshop • Room 105-106, CC**

**Organizer:** Lauren Brewer, General Mills, Minneapolis, MN, U.S.A.

**Moderators:** Elizabeth Pletsch, Purdue University, West Lafayette, IN, U.S.A. and Derrick Amoako, Texas A&M University, College Station, TX, U.S.A.

**10:30 a.m. • 201-W**

Directing your message L. BREWER (1) (1) General Mills, MN, U.S.A.

**10:45 a.m. • 202-W**

Key attributes of associate professors hired into academia. R. FLORES (1) (1) University of Nebraska Lincoln, Lincoln, NE, U.S.A.

**11:00 a.m. • 203-W**

Why scientific excellence is not enough as a post-doc. K. SCHERF (1) (1) Deutsche Forschungsanstalt Fur Lebensmittelchemie, Freising, Germany

**11:15 a.m. • 204-W**

Internship Best Practices for Students D. ORTIZ (1) (1) Kellogg Company, Battle Creek, MI, U.S.A.

**Practical Applications for Classic Dough Systems • Technical • Room 200-201, CC**

**Moderators:** Maureen Olewnik, AIB International, Manhattan, KS, U.S.A.; Sandrayee Brahma, University of Nebraska, Lincoln, NE, U.S.A.

**\*Young Scientist Research Award****\*10:30 a.m. • 701-O**

Departure from current processes: Novel structure design approaches for cereal based foods. M. JEKLE (1) (1) Technical University Munich, Freising, Germany

**10:45 a.m. • 702-O**

Mechanical flour modification and its effect on saccharide formation and dough functionality. S. HACKENBERG (1), M. Jekle (1), T. Becker (1) (1) Technical University of Munich, Institute of Brewing and Beverage Technology, Freising, Germany

**11:00 a.m. • 703-O**

Evaluation of the suitability of heat treated flour in high ratio cakes. S. KEPPLER (1), C. Leadley (2), S. Bakalis (1), P. Fryer (1) (1) University of Birmingham, Birmingham, United Kingdom; (2) Campden BRI, Chipping Campden, United Kingdom

**11:15 a.m. • 704-O**

Effects of wheat cultivar, water, NaCl and mixing on the rheological properties of bread dough. X. SUN (1), F. Koksel (1), M. Scanlon (1), M. Nickerson (2) (1) University of Manitoba, Winnipeg, MB, Canada; (2) University of Saskatchewan, Saskatoon, SK, Canada

**11:30 a.m. • 705-O**

Starch gelatinisation and texture effects during vacuum cooling. T. MORSKY (1) (1) Campden BRI, Chipping Campden, Gloucestershire, United Kingdom

**11:45 a.m. • 706-O**

Optimization of expansion of cakes by investigating the baking acids role in the presence of a physically modified starch. N. HESSO (1), C. LOISEL (2), A. LE-BAIL (2), S. CHEVALLIER (3), P. LE-BAIL (4) (1) GEPEA, ONIRIS, Nantes, France; (2) GEPEA, ONIRIS, France; (3) ONIRIS, Nantes, France; (4) INRA, Nantes, France

**12:00 p.m. • 707-O**

The impact of processing on dough rheology and bread quality using an Asian bread recipe. L. CATO (1), S. Cauvain (2), J. Ma (1) (1) AEGIC, Australia; (2) BakeTran, United Kingdom

**Protein Trends and Technologies: Health, Regulatory and Formulation Challenges • Symposia • Oglethorpe, CC**

**Organizer:** Katharina Scherf, German Research, Freising, Germany

**Moderators:** Lisa Povolny, Medallion Labs / General Mills, Minneapolis, MN, U.S.A. and Clyde Don, Food Physica, Netherlands

**Sponsoring Committee:** Protein and Enzyme Methods Technical Committee

**10:30 a.m. • 901-S**

Making a Protein Claim: Factors impacting Protein Quality and a New Way for Measuring. D. PLANK (1), D. Schmiege (2), L. Povolny (2) (1) Medallion Labs / General Mills, Minneapolis, MN, U.S.A.; (2) Medallion Labs / General Mills, Inc., Minneapolis, MN, U.S.A.

**10:45 a.m. • 902-S**

Formulating with Protein – Opportunities and Challenges: “Don’t take my steak away!” C. DON (1) (1) Foodphysica, Driel, Netherlands

**11:00 a.m. • 903-S**

Impact of formulating high-protein foods on obesity. D. GALLAHER (1) (1) University of Minnesota, Minneapolis, MN, USA

**11:15 a.m. • 904-S**

Oat protein amino acid composition and digestibility to support food formulation and consumption. P. WILLIAMSON (1) (1) Tate & Lyle, Hoffman Estates, IL, U.S.A.

**11:30 a.m. • 905-S**

Formulating with Protein – Opportunities and Challenges from a Consumer Packaged Goods Perspective. E. SMITH (1) (1) General Mills, Minneapolis, MN, U.S.A.

**Pulses as Ingredients in Innovative Food Applications: Physicochemical and Nutri-Functional Attributes • Symposia • Chatham C, CC**

**Organizer:** Jose Berrios, USDA-ARS-WRRC, Albany, CA, U.S.A.

**Moderators:** Jose Berrios, USDA-ARS-WRRC, Albany, CA, U.S.A. and Cristina Rosell, Institute of Agrochemistry and Food Technology (IATA-CSIC), Valencia, Spain

**10:30 a.m. • 1001-S**

Novel fiber-rich lentil flours as snack-type functional foods: an extrusion cooking effect on bioactive compounds. P. MORALES (1), J. De J. Berrios (2) (1) University Complutense of Madrid, Madrid, Spain; (2) USDA-ARS-WRRC, Albany, CA, U.S.A.

**10:45 a.m. • 1002-S**

Pulse ingredients in novel food applications. M. TULBEK (1), R. Lam (1), C. Wang (1), P. Asavajaru (1), A. Lam (1) (1) AGT Food and Ingredients Inc., Saskatoon, SK, Canada

**11:00 a.m. • 1003-S**

Lentil-corn-fermented C.S. seed flours made into expanded extrudates: physico-chemical and nutri-functional attributes. M. MONTES (1), J. Berrios (2) (1) University of Puerto Rico, Mayaguez, U.S.A.; (2) United States Department of Agriculture,

Agricultural Research Service, West Regional Research Center, Albany, CA, U.S.A.

**11:15 a.m. • 1004-S**

Gluten-free spaghetti made with chickpea, unripe plantain and maize: functional, chemical and starch digestibility. L. BELLO (1) (1) CEPROBI-IPN, Yautepec, Morelos, Mexico

**11:30 a.m. • 1005-S**

Pulse-based expanded extrudates fortified with nutritional yeast: quality and functional attributes. J. BERRIOS (1), A. Cheong (2) (1) USDA-ARS-WRRC, Albany, CA, U.S.A.; (2) Lesaffre Yeast Corporation, U.S.A.

**TUESDAY AFTERNOON**

**Dietary Fiber in the Food Industry: A Role for Psyllium? • Symposia • Oglethorpe, CC**

**Organizer:** Kevin Taylor, P&G, Mason, OH, U.S.A.

**Moderators:** Baljit Ghotra, Cargill, Wayzata, MN, U.S.A. and Kevin Taylor, P&G, Mason, OH, U.S.A.

**Sponsoring Committee:** Carbohydrate Division

**2:30 p.m. • 1101-S**

Processing of dietary fibers: Practical considerations. D. PANZER-BIDDLE (1) (1) J. Rettenmaier USA LP, Schoolcraft, MI, U.S.A.

**2:45 p.m. • 1102-S**

Novel applications of dietary fibers. B. HAMAKER (1) (1) Whistler Center for Carbohydrate Research, Purdue University, West Lafayette, IN, U.S.A.

**3:00 p.m. • 1103-S**

Dietary fibers as gluten replacers. A. MARTI (1), M. Pagani (2) (1) University of Milan, Milan, Italy; (2) University of Milan, Italy

**3:15 p.m. • 1104-S**

Characterizing the rheological properties of gluten replacers for gluten-free products. J. BOCK (1), T. Richards (2) (1) C.W. Brabender Instruments, Inc., Cincinnati, OH, U.S.A.; (2) C.W. Brabender Instruments, Inc., South Hackensack, NJ, U.S.A.

**3:30 p.m. • 1105-S**

The Health benefits of Psyllium. Understanding the Mechanisms that Drive Health Benefits. J. MCRORIE, JR., PHD, FACG, AGAF, FACN (1) (1) Global Clinical Sciences, Procter & Gamble, Mason, OH, U.S.A.

**Functionality of Novel Grains, Pulse and Components • Technical • Room 200-201, CC**

**Moderators:** Christina Rosell, IATA – CSIC, Paterna, Valencia, Spain; Sangeeta Mukhopadhyay, University of Arkansas, Fayetteville, AR, U.S.A.

**2:30 p.m. • 801-O**

Pulse Ingredients and their effects on texture and sensory properties in formulating for meat analogues. M. TULBEK (1), C. Wang (2), P. Asavajaru (2), A. Lam (2), R. Lam (2) (1) AGT Foods, Saskatoon, SK, Canada; (2) AGT Foods, Canada

**2:45 p.m. • 802-O**

Assessment of chicory root by-product as a novel insoluble fiber in bread and cereal bars. M. DE ROODE (1), M. Pronk (1), M. van Gurp (2), C. Lin (3) (1) Sensus b.v., Roosendaal, Netherlands; (2) Cosun Food Technology Center, Roosendaal, Netherlands; (3) Sensus America Inc., Lawrenceville, NJ, U.S.A.

**3:00 p.m. • 803-O**

Millet and Teff Based Gluten Free Pasta Formulated with Corn Starch and Glycerol Mono-Stearate as Texture Enhancers.

R. KUMAR (1), F. Aramouni (1), F. Churchill (1), S. Alavi (1) (1) Kansas State University, Manhattan, KS, U.S.A.

**3:15 p.m. • 804-O**

Effect of Bran Reduction on Gluten Secondary Structure in Intermediate Wheatgrass (*Thinopyrum intermedium*) Dough. C. GAJADEERA (1), A. Marti (2), B. Ismail (1) (1) University of Minnesota, St. Paul, MN, U.S.A.; (2) University of Milan, Milan, Italy

**3:30 p.m. • 805-O**

Chemical characterization, functionality, and baking quality of intermediate wheatgrass (*Thinopyrum intermedium*). C. RAHARDJO (1), K. Whitney (2), A. Marti (3), S. Simsek (2), T. Schoenfuss (3), B. Ismail (3) (1) University of Minnesota Twin Cities, MN, U.S.A.; (2) North Dakota State University, U.S.A.; (3) University of Minnesota Twin Cities, U.S.A.

**3:45 p.m. • 806-O**

Effects of hydrocolloids on rheological and optical properties of proso millet dough. Y. ZHANG (1), H. Motta Romero (1), D. Santra (2), D. Rose (2) (1) University of Nebraska-Lincoln, Lincoln, NE, U.S.A.; (2) University of Nebraska-Lincoln, U.S.A.; (3) University of Nebraska-Lincoln, NE, U.S.A.

### **The Future of Food Safety • Symposia • Chatham AB, CC**

**Organizer:** Claudia Carter, California Wheat Commission, Woodland, CA, U.S.A.

**Moderators:** Claudia Carter, California Wheat Commission, Woodland, CA, U.S.A. and Pavel Somavat, Department of Agricultural and Biological Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, U.S.A.

**2:30 p.m. • 1301-S**

Challenges in Food Safety, the Future? B. FERNANDEZ-FENAROLI (1) (1) Center for Produce Safety, Woodland, CA, U.S.A.

**2:45 p.m. • 1302-S**

Genome editing of crops: non-GM technology to increase food safety and nutritional quality. J. GIL-HUMANES (1) (1) Calyxt, New Brighton, MN, U.S.A.

**3:00 p.m. • 1303-S**

FSMA Regulations. M. OLEWNIK (1) (1) AIB International, Manhattan, KS, U.S.A.

**3:15 p.m. • 1304-S**

Virtual Reality Applications for Enhancing Food Safety Training and Science Communications. C. STEVENSON (1) (1) NC State University, Raleigh, NC, U.S.A.

### **Wheat Quality—What Is It and How Have We Been Measuring It? • Symposia • Room 203-205, CC**

**Organizer:** Phil Williams, PDKProjects Inc., Nanaimo, BC, Canada  
**Moderators:** George Lookhart, Retired, Manhattan, KS, U.S.A. and Sun Min Kim, Department of Agricultural and Biological Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, U.S.A.

**Sponsoring Committee:** Protein and Enzyme Methods Technical Committee

**2:30 p.m. • 1201-S**

Analysis of Gluten Proteins – Challenges and Solutions P. KOEHLER (1) (1) Deutsche Forschungsanstalt für Lebensmittelchemie, Freising, Germany

**2:45 p.m. • 1202-S**

Challenging the different aspects of protein and quality measurement along the wheat to bread chain. A. DUBAT (1) (1) Chopin Technologies, Villeneuve la Garenne, France

**3:00 p.m. • 1203-S**

100 Years of Cereal Chemistry, and Counting, Continues to Impact the Baking Industry. T. COGSWELL (1) (1) BakerCogs, Inc., Overland Park, KS, U.S.A.

**3:15 p.m. • 1204-S**

What has near-infrared spectroscopy (NIRS) done for cereal chemistry. P. WILLIAMS (1) (1) PDKProjects Inc., Nanaimo, BC, Canada

**3:30 p.m. • 1205-S**

Analytical Measurements – What, How, and Why do we measure? T. NELSEN (1) (1) independent consultant, Port Byron, IL, U.S.A.

## WEDNESDAY, OCTOBER 26

7:00 – 8:15 a.m.	Kansas State University Breakfast*	Room 100, CC
7:00 – 8:15 a.m.	North Dakota State University Alumni Breakfast*	Greene Board Room, CC
7:00 – 8:30 a.m.	<b>Technical Committee Meetings</b> Chemical Leavening Agents Dietary Fiber and Other Carbohydrates Methods for Grain and Flour Pasta Products Analysis Protein and Enzyme Methods Statistical Advisory	Grand F, Westin Grand E, Westin Grand D, Westin Grand A, Westin Riverscape, Westin Moorings, Westin Rotunda, CC
7:30 a.m. – 3:15 p.m.	Registration Open	Tondee's Café, CC
7:30 a.m. – 3:15 p.m.	First Timers' Lounge Open	Chatham AB, CC
8:30 – 10:00 a.m.	<b>General Session and Plenary with Keynote Speaker Nina Fedoroff</b>	Rotunda, CC
8:30 a.m. – 12:00 p.m.	AACCI PRESS Bookstore	Chatham AB, CC
9:00 – 10:00 a.m.	<b>Special Symposium: The Future of Food—Sustainability and Safety</b>	Oglethorpe, CC
10:00 a.m. – 3:00 p.m.	<b>Special Symposium: The Future of Food—Sustainability and Safety (continued)</b>	Harbor A, Westin
10:30 – 11:30 a.m.	Nominating Committee Meeting	
10:30 a.m. – 12:00 p.m.	<b>Scientific Sessions</b> Hot Topic: Are National Dietary Guidelines Effective in Promoting Whole Grain Consumption? Symposium: Cereals and Pulse-Based Foods in Asia: Innovation and Modernization for Health Technical: Economical Testing and Processing for the Grain Industry Symposium: Powder Rheology	Chatham AB, CC Room 200–201, CC
11:00 a.m. – 12:00 p.m.	2017 Technical Program Planning Meeting	Chatham C, CC
12:00 – 1:30 p.m.	ICC Luncheon* Engineering & Processing Division Meeting and Lunch* Rheology Division Meeting and Lunch* Box Lunch Pickup*	Room 203–205, CC Harbor B, Westin Room 100, CC Aqua Star, Westin Room 103, CC Chatham C Foyer, CC
1:30 – 3:00 p.m.	<b>Scientific Sessions</b> Technical: Late-Breaking Technicals Technical: Quality and Food Safety for the Grain Industry Technical: Spectrometric Analysis of Grain Components Symposium: Sprouted Grains: What is in it for Consumers? <b>Special Symposium: The Future of Food—Sustainability and Safety (continued)</b>	Room 200–201, CC Room 203–205, CC Chatham C Chatham AB, CC Chatham AB, CC Chatham AB, CC
3:10 – 5:30 p.m.	General Session: Future Trends for Food Production	Tondee's Café, CC
3:10 – 5:30 p.m.	Close and Refreshments	

\* Ticket Required

## WEDNESDAY HIGHLIGHTS



### Plenary: Challenges for Food Production and the Potential for the Modern Plant Breeding Methods to Contribute

9:00 – 10:00 a.m.

*Nina V. Fedoroff, Evan Pugh Professor Emerita, Penn State University, and Senior Science Advisor, OFW Law, Washington, DC.*

The 20th century saw a dramatic expansion of agricultural production through the pervasive spread of agricultural science and technology, principally fertilizers, mechanization, and improved seeds. Fedoroff will discuss the potential of science and technology to overcome such constraints and the cultural factors that will likely impede success.

### Hot Topic: Are National Dietary Guidelines Effective in Promoting Whole Grain Consumption?

10:30 a.m. – 12:00 p.m.

The U.S. government issues Dietary Guidelines for Americans every five years and other nations also rely on this document. Guidelines advocate that half of all grain servings be whole grains,

yet most Americans fail to meet this target. The food industry has released more whole grain foods to the marketplace, but the balance of availability, affordability, and demand is not yet successful. Conflicting research reports further complicate the picture.

### Late-Breaking Technicals

1:30 – 3:00 p.m.

New this year, AACCI sent out a call for late-breaking abstract submissions to provide the cereal grains community the opportunity to communicate the most recent scientific breakthroughs. This session highlights presentations for the most novel, innovative, contemporary, and highly significant research submitted for this category.

### General Session: Future Trends for Food Production

3:10 – 5:30 p.m.

Topics include New Technologies, *John Pitkin, Global Disease Management Platform Lead, Crop Technology Team, Monsanto*; Application of Biologics in Agriculture, *Thomas Schäfer, Vice President Novozymes North America Inc.*; and Looking to the Future—Communication, *Jack Bobo, Senior Vice President, Chief Communications Officer, Intrexon Corporation*, followed by a Panel Discussion with all topic presenters.

## The Future of Food—Sustainability and Safety

*This symposium is included with full 2016 AACCI Annual Meeting registration and was also available for registration as a one-day event.*

Modern agriculture is required to produce more and better food in a sustainable way. This sustainability symposium is intended to provide an opportunity for all members of the food production industry, including product developers, supply chain, and quality managers, to discuss modern plant breeding technologies, the safety assessment process for present and future biotech crops, and their relevance in the food chain.

### Food Production and Agriculture

**Moderator:** Laura Hansen, General Mills, Minneapolis, MN, U.S.A.

- **Plenary: Challenges for Food Production and the Potential for the Modern Plant Breeding Methods to Contribute.** Nina V. Fedoroff, Evan Pugh Professor Emerita, Penn State University, and Senior Science Advisor, OFW Law, Washington, DC.
- **Application of Biotechnology and Modern Approaches in Agriculture.** David Hollinrake, Vice President of Agricultural Commercial Operations (ACO) Marketing for Crop Science, a Division of Bayer

### Safety of Biotechnology

**Moderator:** Deidre Ortiz, Kellogg Co., Battle Creek, MI, U.S.A.

- **Genetically Engineered Crops: Experiences and Prospects.** Fred Gould, William Neal Reynolds Professor of Agriculture, North Carolina State University
- **Safety Across All Plant Breeding Technologies.** Andrew Roberts, ILSI Research Foundation
- **Crop Biotechnology: A Pivotal Moment for Global Acceptance.** Elizabeth Grabau, Professor of Plant Pathology, Virginia Tech.

### Management and Compliance for Food Supply

**Moderator:** Anne Bridges, AACC International, St. Paul, MN, U.S.A

- **Managing GM Crops in the Domestic and Global Food Marketplace.** Speaker to be confirmed.
- **Quality Management Through the Supply Chain.** Scott Hood, Global Quality Manager, General Mills

### Future Trends for Food Production

**Moderator:** Samuel Millar, Warburtons, Bolton, United Kingdom

- **New Technologies.** John Pitkin, Global Disease Management Platform Lead, Crop Technology Team, Monsanto
- **Application of Biologics in Agriculture.** Thomas Schäfer, Vice President Novozymes North America Inc.
- **Looking to the Future—Communication.** Jack Bobo, Senior Vice President, Chief Communications Officer, Intrexon Corporation

### Synthesis and Panel Discussion

All topic presenters plus invited experts. Led by Les Copeland; Professor and former Dean of Agriculture at the University of Sydney

**Financial Sponsors:** Bayer CropScience LP, EPL Bio Analytical Services, Monsanto Company, OMIC USA, Inc.

## AACCI 2016 Meeting at your fingertips!

Why use the app? More content than the Program Book and features connecting you with other attendees plus the latest updates. Plus—it's free!

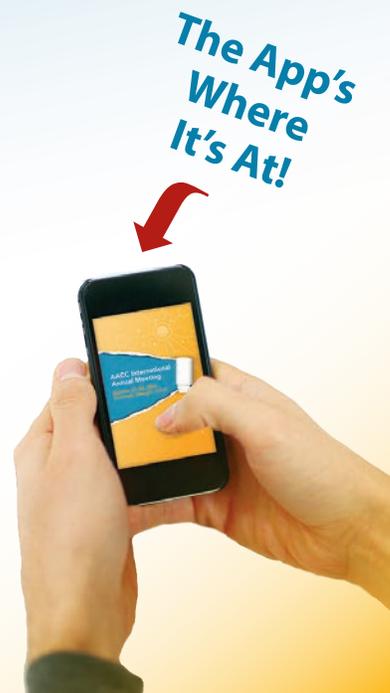
Some highlighted features include:

- **Browse** the program schedule, exhibitor list, posters, and general information
- **Customize** your schedule and add appointments
- **Access** session information, including full abstracts
- **Add** exhibitors to your to-do list
- **Connect** with other attendees: send messages and make appointments
- **Connect** with your iPad-specific version
- **Schedule Posters by Appointment** by connecting with poster authors to make appointments to meet and discuss poster content (in addition to the poster author time)

### Get the app...It's FREE!

Available for iOS (iPhone and iPad) and Android devices. Blackberry and Windows phone users have access to a mobile website that will offer the same functionality.

Go to [mobileapp.aaccnet.org](http://mobileapp.aaccnet.org) to find links to your mobile app store or search AACCI 2016 in your app store. Or—follow the QR code on the front cover.



## WEDNESDAY SCIENTIFIC SESSIONS

Session number refers to abstract number on the mobile app and online. S = Symposium, O = Technical, W = Workshop.

### WEDNESDAY MORNING

#### Are National Dietary Guidelines Effective In Promoting Whole Grain Consumption? • Hot Topic • Chatham AB, CC

**Organizer:** Mary Ellen Camire, University of Maine with the AACCI Nutrition Division

**Moderators:** Anne Birkett, Kellogg Co., U.S.A. and Vicky Solah, Curtin University, Australia

**Financial Sponsor:** Medallion Labs

#### 10:30 a.m.

Why aren't consumers adopting whole grains, and do Guidelines account for trans-cultural eating patterns? Mary Ellen Camire, University of Maine, U.S.A.

#### 10:45 a.m.

Are all dietary surveillance and observational studies useless for informing public health policy? Carol Boushey, University of Hawaii, U.S.A.

#### 11:00 a.m.

Obesity: some say the solution is exercise, but we say it is diet. TBA

#### Cereals and Pulse-Based Foods in Asia: Innovation and Modernization for Health • Symposia • Room 200-201, CC

**Organizer:** Bob Cracknell, AACCI China Strategies Committee, Australia

**Moderators:** Harold Corke, University of Hong Kong, Hong Kong, China and Weining Huang, Jiangnan University, Wuxi, China

**Sponsoring Committee:** China Strategies Task Force Committee

#### 10:30 a.m. • 1501-S

Lactic acid fermentation affects antioxidant capacity and polyphenol content in Chinese beans-based functional foods. H. CORKE (1), R. Gan (2) (1) University of Hong Kong, Hong Kong, Hong Kong; (2) University of Hong Kong, Hong Kong

#### 10:45 a.m. • 1502-S

New developments in uses of "cereals and pulses", traditionally a basic food ingredient in the East. M. SINGH (1) (1) USDA ARS, Peoria, IL, U.S.A.

#### 11:00 a.m. • 1503-S

Effects of different lactic acid bacteria starters on ACE-I inhibition activity and functional properties of soy sourdough fermentation. W. HUANG (1), J. Omedi (2), K. Zhang (3) (1) Jiangnan University, Wuxi Jiangsu, China; (2) Jiangnan University, Wuxi, China; (3) Jiangnan University, China

#### 11:15 a.m. • 1504-S

Nutrient profiles and antioxidant activities of germinated brown rice and its food products. J. BAO (1), Y. Wang (2), S. Shen (2) (1) Zhejiang University, Hangzhou, China; (2) Zhejiang University, China

#### 11:30 a.m. • 1505-S

GABA enrichment and functional metabolites produced by Mung bean and cereals fermentation system for foods. C. JIA (1), F. Wang (2), X. Su (2) (1) Jiangnan University, Wuxi, China; (2) MagiBake International, Inc., Wuxi, China

#### Economical Testing and Processing for the Grain Industry • Technical • Chatham C, CC

**Moderators:** An-I Yeh, Natl Taiwan University, Taipei, Taiwan and Wei Cao, University of Guelph, Guelph, ON, Canada

#### 10:30 a.m. • 901-O

Development of quantitative screening methods for feruloylated arabinoxylan side chain profiles in whole grains. R. SCHENDEL (1), M. Bunzel (1) (1) Karlsruhe Institute of Technology, Department of Food Chemistry and Phytochemistry, Germany

#### 10:45 a.m. • 902-O

Development of a small-scale wheat testing regime for assessment of bread-making quality. C. BAKER (1), S. Penson (1) (1) Campden BRI, Chipping Campden, United Kingdom

#### 11:00 a.m. • 903-O

Falling Number: sliced and diced. S. DELWICHE (1), B. Vinyard (1) (1) USDA-ARS, Beltsville, MD, U.S.A.

#### 11:15 a.m. • 904-O

Process optimization for economic recovery of anthocyanins from colored corns. P. SOMAVAT (1), Q. Li (1), E. de Mejia (1), W. Liu (1), V. Singh (1) (1) University of Illinois at Urbana-Champaign, Urbana, IL, U.S.A.

#### 11:30 a.m. • 905-O

Vacuum-coupled High-Solid Fermentation of Corn for Bioethanol Production. D. KUMAR (1), V. Singh (1) (1) University of Illinois at Urbana-Champaign, Urbana, IL, U.S.A.

#### 11:45 a.m. • 906-O

Impact of superfine grinding on the multi-scale structures and pasting characteristics of starch in whole-wheat flour. M. NIU (1), B. Zhang (1), S. Xiong (1), S. Zhao (1) (1) Huazhong Agricultural University, Wuhan, China

#### Powder Rheology • Symposia • Room 203-205, CC

**Organizer:** Kingsly Ambrose, Purdue University, West Lafayette, IN, U.S.A.

**Moderators:** Kingsly Ambrose, Purdue University, West Lafayette, IN, U.S.A. and Robin Connelly, DuPont Nutrition & Health, St. Louis, MO, U.S.A.

**Financial Sponsor:** Anton Paar

#### 10:30 a.m. • 1401-S

Sorption and powder behavior. K. Ambrose, M. EMBUSCADO (1) (1) McCormick & Company, Inc., Hunt Valley, MD, U.S.A.

#### 10:45 a.m. • 1402-S

Modeling Particle Flow and Dynamics. C. WASSGREN (1) (1) School of Mechanical Engineering / Purdue University, West Lafayette, IN, U.S.A.

#### 11:00 a.m. • 1403-S

Cereal killers – the need for particle size and shape information in grain technology. A. RAWLE (1) (1) Malvern Instruments Inc., Westborough, MA, U.S.A.

#### 11:15 a.m. • 1404-S

Agglomeration of powders. D. KAYRAK-TALAY (1) (1) The Dow Chemical Company, Midland, MI, U.S.A.

#### 11:30 a.m. • 1405-S

Agglomeration of powders. E. RIEDL (1) (1) Anton Paar GmbH, West Lafayette, IN, U.S.A.

## WEDNESDAY AFTERNOON

**Late-Breaking** • Technical • Room 200-201, CC

**Moderators:** Katharina Scherf, Deutsche Forschungsanstalt für Lebensmittelchemie, Germany; Luis Sabillon, University of Nebraska, Lincoln, NE, U.S.A.

**1:30 p.m. • 1201-O**

Quantification of peptides causing celiac disease in historical and modern hard red spring wheat cultivars. M. MALALGODA (1), J. Ohm (2), S. Meinhardt (1), S. Simsek (1) (1) North Dakota State University, U.S.A.; (2) USDA, U.S.A.

**1:45 p.m. • 1202-O**

Selective inactivation of trypsin inhibitor in chickpea and soybean using L-cysteine as a reducing agent. S. AVILÉS-GAXIOLA (1), S. Serna-Saldívar (1), C. Chuck-Hernández (1) (1) Tecnológico de Monterrey, Mexico; (2) Tecnológico de Monterrey, Monterrey, Mexico

**2:00 p.m. • 1203-O**

Pilot study using wheat bran to mitigate malnutrition and enteric pathogens. A. KISZONAS (1) (1) USDA-ARS, Pullman, WA, U.S.A.

**2:15 p.m. • 1204-O**

Effect of Ultrasound and Germination Time on Alpha-Amylase Activity in Wheat Grain. R. CHÁVEZ-PULIDO (1), A. Islas-Rubio (1) (1) CIAD, A.C., Mexico

**2:30 p.m. • 1205-O**

New method - A single value for seed size variability or uniformity of a grain sample. J. WOOD (1), S. Harden (1) (1) NSW Department of Primary Industries, Calala, Australia

**2:45 p.m. • 1206-O**

Combining metabolomics and genomics to provide robust and trait-relevant tools to rice breeders. M. FITZGERALD (1), V. Daygon (2), M. Garson (2), S. Prakash (2), B. Ovenden (3) (1) University of Queensland, St Lucia, Other, Australia; (2) University of Queensland, St Lucia, Australia; (3) NSW Agriculture, Yanco, Australia

**Quality and Food Safety for the Grain Industry** • Technical • Room 203-205, CC

**Moderators:** An-I Yeh, Natl Taiwan University, Taipei, Taiwan; Maneka Malalgoda, North Dakota State University, Fargo, ND, U.S.A.

**1:30 p.m. • 1101-O**

Variation in the asparagine concentration in Nebraska wheat and other grains. S. NAVROTSKYI (1), D. Rose (2) (1) University of Nebraska-Lincoln, U.S.A.; (2) University of Nebraska Lincoln, U.S.A.

**1:45 p.m. • 1102-O**

Relationship between mycotoxin contamination of colored corn types and phenolic acid evolution during kernel development. T. BETA (1), D. Giordano (2), M. Blandino (2), A. Reyneri (2) (1) University of Manitoba, Winnipeg, MB, Canada; (2) University of Torino, Italy; (3) University of Torino, Grugliasco, Italy

**2:00 p.m. • 1103-O**

Food safe validation and verification: applying industry-driven research to ensure log reduction. D. PATEL (1), B. Hinkle (1) (1) Buhler Aeroglide, Cary, NC, U.S.A.



## Superior flavor and performance in every batch.

*BeneGrain brings you the very best in sprouted wheat performance. Our meticulously controlled germination process transforms whole wheat - creating a better-tasting option that satisfies you and your customers.*

- Exceptional baking performance
- Reduced need for malted barley flour and vital wheat gluten
- Less bitterness means adding less sugar
- Whole grain nutrition that's easily digested
- Available in conventional and organic

**Bay State Milling** 

*A Trusted Family of Ingredients.*

**For more information on our products, call 1-800-553-5687 or visit [www.baystatemilling.com](http://www.baystatemilling.com)**

**2:15 p.m. • 1104-O**

Time-dependent adhesion behaviour of dough - relation to surface structure, surface energy and microbial contamination. R. LAUKEMPER (1), M. Jekle (1), T. Becker (1) (1) Technical University of Munich, Institute for Brewing and Beverage Technology, Freising, Germany

**2:30 p.m. • 1105-O**

Influence of foliar fungicide treatment of wheat on lipolytic activity in whole wheat flour. R. POUDEL (1), D. Rose (1) (1) University of Nebraska Lincoln, Lincoln, NE, U.S.A.

**2:45 p.m. • 1106-O**

New durum wheat with soft kernel texture: end-use quality analysis of the Hardness locus in *Triticum turgidum* ssp. durum. J. BOEHM, JR. (1), M. Ibba (2), A. Kiszonas (3), C. Morris (3) (1) Washington State University, Pullman, WA, U.S.A.; (2) Washington State University, U.S.A.; (3) USDA ARS, U.S.A.

**Spectrometric Analysis of Grain Components • Technical • Chatham C, CC**

**Moderators:** Satya Jonnalagadda, Kerry, Roscoe, IL, U.S.A.; Rachel Schendel, Karlsruhe Institut für Technologie, Minneapolis, MN, U.S.A.

**1:30 p.m. • 1001-O**

Triterpenoid Saponins quantification from Quinoa (*Chenopodium Wild*) by UV-Vis/GC-MS. I. MEDINA MEZA (1), N. Aluwi (1), S. Saunders (2), G. Ganjyal (1) (1) School of Food Science, Washington State University, Pullman, WA, U.S.A.; (2) The Gene and Linda Voiland School of Chemical Engineering and Bioengineering, Washington State University, Pullman, WA, U.S.A.

**1:45 p.m. • 1002-O**

Colorimetric oligosaccharide substrates for the measurement of polysaccharide endo-hydrolases. B. MCCLEARY (1), B. McCleary (1), D. Mangan (1), C. Cornaggia (1), A. Lidova (1) (1) Megazyme International Ireland, Bray, Ireland

**2:00 p.m. • 1003-O**

Image analysis for objective measurement of grain defects and foreign material. D. ROBAY (1) (1) FOSS Analytical A/S, Hillerod, Denmark

**2:15 p.m. • 1004-O**

A novel approach for structural analysis of high viscous starch based products during heating. M. SCHIRMER (1), M. Jekle (2), T. Becker (2) (1) Bühler AG, Uzwil, Switzerland; (2) TU München, Germany

**2:30 p.m. • 1005-O**

Application of NMR-spectroscopy for structural analysis of pseudocereal non-starch polysaccharides. D. WEFERS (1), M. Bunzel (1) (1) Karlsruhe Institute of Technology, Karlsruhe, Germany

**2:45 p.m. • 1007-O**

Does manipulation of the glutenin composition of durum wheat improve bread but keep pasta quality? M. SISSONS (1), J. Luo (1), W. Zou (2), D. Fleming (3), F. Sestili (4), D. Lafiandra (4) (1) NSW Dept Primary Industries, Tamworth, Australia; (2) Univ Queensland, Brisbane, Australia; (3) NSW DPI, Australia; (4) Univ Tuscia, Italy

**Sprouted Grains: What is in it for Consumers? • Symposia • Chatham AB, CC**

**Organizer:** Elsayed Abdelaal, Agriculture and Agri-Food Canada, Guelph, ON, Canada

**Moderators:** Elsayed Abdelaal, Agriculture and Agri-Food Canada, Guelph, ON, Canada and Robert Serrano, GrainMillers, Eugene, OR, U.S.A.

**Sponsoring Committee:** Bioactive Compounds Technical Committee

**1:30 p.m. • 1601-S**

Nutritional efficacy of sprouted grains - State of the Research. M. OMARY (1) (1) The Omary Group, Riverside, CA, U.S.A.

**1:45 p.m. • 1602-S**

Sprouted whole wheat flour functionality evaluation in the biscuits. B. ZHAO (1), L. Haynes (1), L. Yang (1), P. AYMARD (2), A. MEYNIER (3) (1) Mondelez International, East Hanover, NJ, U.S.A.; (2) Mondelez International, Saclay, Other, France; (3) Mondelez International, Saclay, France

**2:00 p.m. • 1603-S**

Nutrient bioavailability and application of sprouted crops in food products. J. HAN (1) (1) Food Processing Development Centre / Government of Alberta, Leduc, AB, Canada

**2:15 p.m. • 1604-S**

Role of sprouted seeds in human health and disease prevention. J. FAHEY (1), G. Chodur (2), A. Dinkova-Kostova (3), T. Kensler (4), H. Liu (2), K. Stephenson (2), P. Talalay (2), K. Wade (2), A. Zimmerman (5) (1) John Hopkins School of Medicine, Baltimore, MD, U.S.A.; (2) Johns Hopkins University, Baltimore, MD, U.S.A.; (3) University of Dundee, Dundee, Other, Scotland; (4) University of Pittsburgh, Pittsburgh, PA, U.S.A.; (5) University of Massachusetts Medical Center, Worcester, MA, U.S.A.

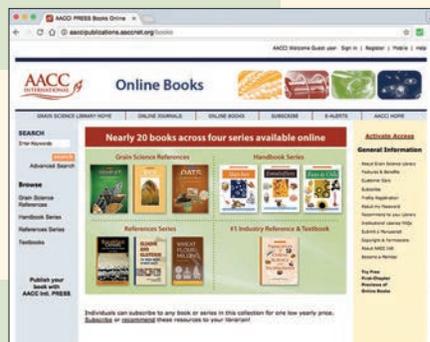
**2:30 p.m. • 1605-S**

Panel Discussion for 30-minutes - Sprouted Grains: Opportunities and challenges. E. ABDELAAL (1), R. Serrano (2) (1) AAFC, Guelph, ON, Canada; (2) GrainMillers, Eugene, OR, U.S.A.

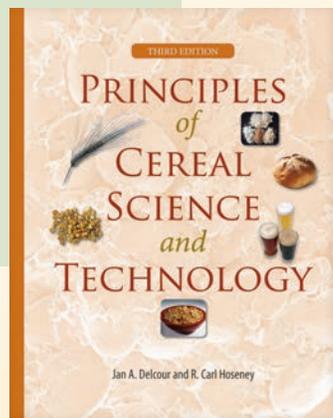
## Take advantage of our exclusive annual meeting specials!

- ▶ More than 100 titles ALL ON SALE!
- ▶ Buy 3 books, and get **FREE shipping PLUS** your choice of one of 10 **FREE Ingredient Handbooks!**

Subscribe to our entire online book collection for **just \$175!**



**Professors!**  
Register for **FREE CLASSROOM ACCESS** to *Principles of Cereal Science and Technology, Third Edition*



**Select Books 50% OFF!**

Conveniently located at **AACCI Central** in the rotunda near the main entrance!

Grain Millers, Inc. is a leader in the manufacturing of whole grain ingredients. We are driven by the building of intimate, people-first partnerships along the entire supply chain. We are in the business of solving your technical and formulation problems while connecting you to our direct farm supply base at a level that is truly unique.

*Whole Grains. Wholesome Values.*



- Oats
- Oat Fiber
- Wheat
- Corn
- Rye
- Barley
- Flaxseed
- Soybeans
- Ancient Grains
- And Much More...

**West Coast:**  
800.443.8972

**Midwest & Canada:**  
800.232.6287



**GRAIN MILLERS**

[grainmillers.com](http://grainmillers.com)

# SCIENTIFIC POSTERS – HALL A, CONVENTION CENTER

## MONDAY, OCTOBER 24

- 7:00 – 11:00 a.m. Poster Set-Up by Authors
- 11:30 a.m. – 6:00 p.m. Poster Viewing
- 3:00 – 6:00 p.m. Beer and Posters, Exhibit Hall Open
- 4:00 – 5:00 p.m. Student Poster, *Authors Present*
- 5:00 – 6:00 p.m. Odd-numbered Posters, *Poster Authors Present*

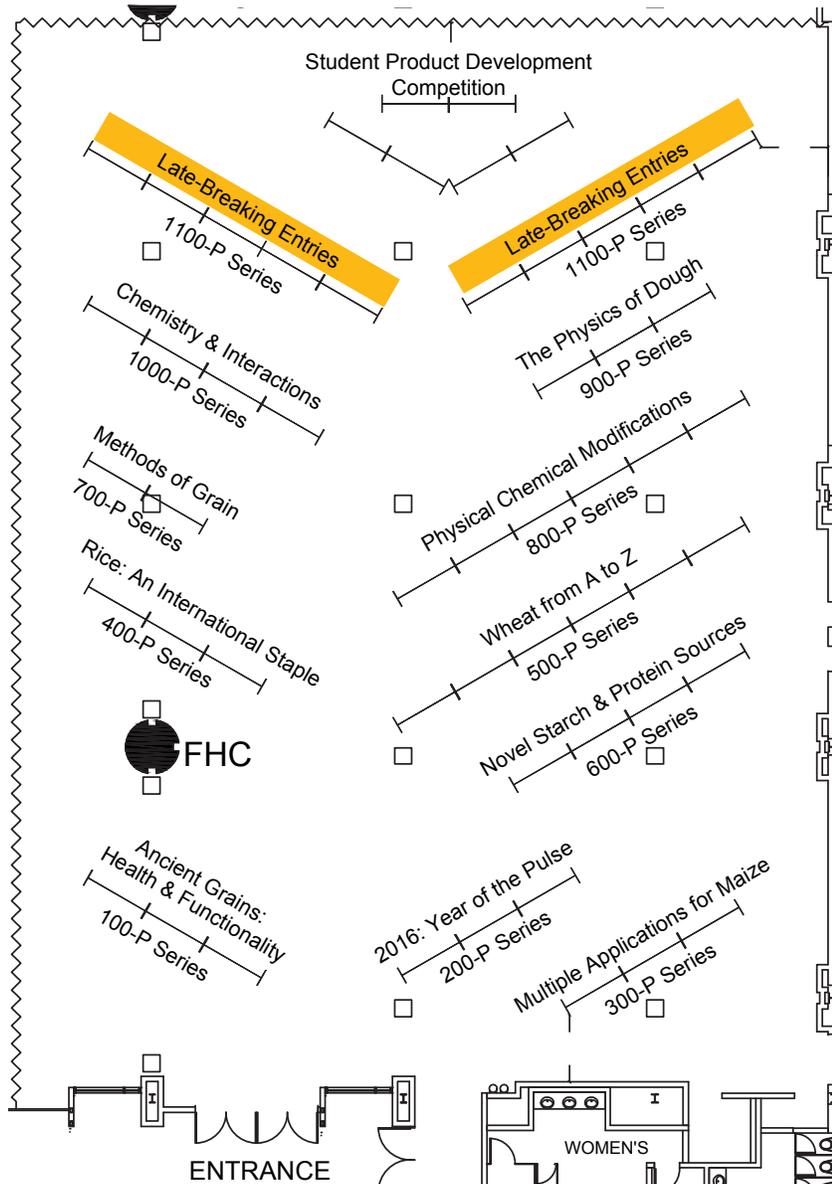
## TUESDAY, OCTOBER 25

- 8:00 a.m. – 2:15 p.m. Poster Viewing
- 12:00 – 2:15 p.m. Lunch with the Exhibitors and Poster Viewing
- 1:00 – 2:00 p.m. Even-numbered Posters, *Poster Authors Present*
- 2:30 – 6:00 p.m. Exhibit and Poster Take-Down

Taking photographs of displayed materials is strictly prohibited without permission from authors.

Poster numbers are grouped by category section with a “-P” suffix. This number refers to abstract number on the mobile app and online. (Ex. 101-P, etc.) Poster titles and authors are listed by category on the following pages.

Poster abstracts are available online at [aacnet.org/meet](http://aacnet.org/meet). See the left side navigation option for “searchable abstracts.” And through the mobile app.



## Ancient Grains: Health and Functionality

- 101-P Functional properties of improved high protein digestibility-hard endosperm sorghum lines**  
T. TEFERRA (1), D. Amoako (1), J. Awika (1) (1) Texas A&M University, College station, TX, U.S.A.
- 102-P Compositional and structural characterization of buckwheat hulls and buckwheat hull dietary fiber**  
D. WEFERS (1), J. Schaefer (1), F. Urvat (1), M. Bunzel (1) (1) Karlsruhe Institute of Technology, Karlsruhe, Germany
- 103-P Health-promoting effect of ancient and genetically modified barley lines**  
A. BLENNOW (1), D. Sagnelli (1), S. Chessa (2), G. Mandalari (3), M. Di Martino (4), J. Bao (5), E. Vincze (6), W. Sorndech (7), K. Hebelstrup (6) (1) University of Copenhagen, Denmark; (2) Institute of Food Research, Norwich, Other, United Kingdom; (3) Institute of Food Research, Norwich, United Kingdom; (4) University of Napoli, Napoli, Italy; (5) Zhejiang University, China; (6) Aarhus University, Denmark; (7) University of Copenhagen, Denmark
- 104-P Nutritional properties of Proso millet grown as a second crop in Minnesota**  
C. TYL (1), A. Marti (2), J. Anderson (3), J. Hayek (3), B. Ismail (3) (1) University of Minnesota, Saint Paul, MN, U.S.A.; (2) University of Milan, Italy; (3) University of Minnesota, U.S.A.
- 105-P Physical, rheological and baking properties of proso millet cultivars**  
M. SINGH (1), A. Adedeji (1) (1) University of Kentucky, Lexington, KY, U.S.A.
- 106-P Use of *Aspergillus niger* peptidase for making reduced immunoreactive bread supplemented with an amaranth blend**  
N. HEREDIA-SANDOVAL (1), A. Calderon de la Barca (1), A. Islas-Rubio (1) (1) CIAD, A.C., Mexico
- 107-P Effect of Reducing Agents on Batter Consistency and Physical Characteristic of Bread from Sorghum Flour**  
E. FORT (1), R. Miller (1) (1) Kansas State University, Manhattan, KS, U.S.A.
- 108-P Conformational insight of prolamin from proso millet: A fluorescence spectroscopy study**  
Y. ZHANG (1), L. Xie (2), L. Wang (2), D. Rose (3) (1) University of Nebraska-Lincoln, Lincoln, NE, U.S.A.; (2) University of Nebraska-Lincoln, U.S.A.; (3) University of Nebraska-Lincoln, NE, U.S.A.
- 109-P Structural profiling of flavonoids in different cowpea and sorghum phenotypes for potential synergistic bioactivity**  
S. RAVISANKAR (1), J. Awika (1) (1) Texas A&M, College Station, TX, U.S.A.

## 2016: Year of the Pulse

- 201-P Effects of pretreatments on removing the seed coat from the cotyledon of black bean**  
S. FERNANDO (1), C. Hall (1), F. Manthey (1) (1) North Dakota State University, Fargo, ND, U.S.A.
- 202-P Modification of whole flours of navy bean, pinto bean, black bean and chickpea by steam jet cooking and drum drying**  
F. FELKER (1), J. Kenar (1), J. Byars (2), M. Singh (2), S. Liu (2) (1) USDA/ARS/NCAUR, Peoria, IL, U.S.A.; (2) USDA/ARS/NCAUR, U.S.A.
- 203-P Characterization, functionality and *in vitro* digestion of refined starches from ten chickpea cultivars.**  
A. MILÁN NORIS (1), S. Serna-Saldivar (1), J. De la Rosa-Millan (2) (1) Tecnológico de Monterrey, Monterrey, Mexico; (2) Tecnológico de Monterrey, Mexico
- 204-P Impact of chickpea and plantain based gluten-free snacks on weight gain, serum lipid and insulin resistance of rats**  
L. BELLO-PEREZ (1), P. Flores-Silva (1), J. Tovar (2), R. Reynoso-Camacho (3) (1) CEPROBI-IPN, Yautepec, Mexico; (2) University of Lund, Lund, Sweden; (3) Universidad Autonoma de Queretaro, Queretaro, Mexico
- 205-P Glycemic response of chickpea and food grade DDGS(FDDG) fortified pita breads**  
P. KRISHNAN (1), W. Alrayyes (1) (1) SDSU, brookings, SD, U.S.A.

- 206-P Effect of sodium selenite on isoflavonoid contents and antioxidant capacity of chickpea (*Cicer arietinum* L.) sprouts.**  
D. GUARDADO (1), J. Gutierrez-Urbe (2), S. Serna-Saldivar (3) (1) Universidad Autonoma de Sinaloa, Culiacan, Mexico; (2) Monterrey Tech., Monterrey, Mexico; (3) Monterrey Tech., Mexico
- 207-P Effect of processing variables on the yield and composition of air-classified fractions from field peas**  
N. WANG (1), J. Santos (2), L. Maximiuk (2) (1) Canadian Grain Commission, Winnipeg, MB, Canada; (2) Grain Research Laboratory, Winnipeg, MB, Canada
- 208-P Sensory Evaluation of Gluten-Free Cookies Made with Pinto Beans**  
C. HALL (1), C. Simons (2) (1) North Dakota State University, Fargo, ND, U.S.A.; (2) Wright State University - Lake Campus, Fargo, ND, U.S.A.
- 209-P Evaluation of characteristics and palatability of dog kibbles made with pea starch vs other starches**  
C. PERERA (1) (1) Roquette America, Geneva, IL, U.S.A.

## Multiple Applications for Maize

- 301-P Using hot water pretreated corn stover liquor in dry grind ethanol process to improve ethanol yields**  
S. KIM (1), D. Lee (1), M. Bohn (1), Y. Jin (1), K. Rausch (1), M. Tumbleson (1), V. Singh (1) (1) University of Illinois at Urbana-Champaign, U.S.A.
- 302-P Use of corn with high amino acid content for bioethanol production**  
D. RAMCHANDRAN (1), S. Moose (1), C. Parsons (1), V. Singh (1) (1) University of Illinois, Urbana, IL, U.S.A.
- 303-P Starch analysis of self-pollinated and open-pollinated common corn in Taiwan**  
I. HSIEH (1), Y. Chen (2), S. Jeng (3), G. Shieh (2), H. Lai (4) (1) Department of Agricultural Chemistry, Taiwan; (2) Division of Crop Science, Taiwan Agriculture Research Institute, Taiwan; (3) Institute of Plant Biology, National Taiwan University, Taiwan; (4) Department of Agricultural Chemistry, National Taiwan University, Taiwan
- 304-P Microscale structure and thermal and pasting properties of sweet corn and cow cockle starches**  
X. PENG (1), Y. Yao (1) (1) Department of Food Science, Purdue University, West Lafayette, IN, U.S.A.
- 305-P Distribution of acetyl group in acetylated maize starches synthesized in aqueous medium**  
J. XU (1), Y. Shi (1) (1) Kansas State University, Manhattan, KS, U.S.A.
- 306-P Molecular size and shape changes in waxy maize starch during dextrinization**  
Z. SUN (1), Y. Shi (2) (1) Kansas State University, Manhattan, KS, U.S.A.; (2) Kansas State University, U.S.A.
- 307-P Effects of pullulanase activity on debranching of waxy maize starch and digestibility of debranched products**  
J. SHI (1), M. Sweedman (2), Y. Shi (2) (1) Kansas State University, Grain Science and Industry Department, Manhattan, KS, U.S.A.; (2) Kansas State University, U.S.A.
- 308-P Understanding the mycobiota of native maize from the highlands of Guatemala, and implications to its quality and safety**  
R. MENDOZA (1), A. Bianchini (1), H. Hallen-Adams (1), C. Campabadal (2) (1) University of Nebraska-Lincoln, Lincoln, NE, U.S.A.; (2) Kansas State University, Manhattan, KS, U.S.A.

## Rice: An International Staple

- 401-P Variations in rice grain quality traits across locations in Africa**  
J. MANFUL (1), K. Saito (1), S. Graham-Acquaah (1) (1) Africa Rice Center, Cotonou, Benin
- 402-P Kernel and starch properties of United States and imported medium/short-grain rice**  
J. PATINDOL (1), J. Jinn (1), Y. Wang (1), T. Siebenmorgen (1) (1) University of Arkansas, U.S.A.

- 403-P Characterization of the time evolution of starch structure from rice callus, a model system for plant bioengineering**  
C. LI (1), G. Liu (2), Q. Liu (3), I. Godwin (2), R. Gilbert (2) (1) Purdue university, WEST LAFAYETTE, IN, U.S.A.; (2) The University of Queensland, Australia; (3) Yangzhou University, China
- 404-P The effects of rice flour and corn starch on estimated glycemic index of rice vermicelli**  
C. MINGFEN (1) (1) China Grain Products Research & Development Institute, Taiwan
- 405-P A systematic review of the effects of sustainable production practices on rice quality and nutrient content**  
C. BERGMAN (1), M. Pandhi (2) (1) UNLV, Las Vegas, NV, U.S.A.; (2) UNLV, U.S.A.
- 407-P Characterization of broken rice kernels caused by moisture-adsorption fissuring – an extended study**  
S. MUKHOPADHYAY (1), T. Siebenmorgen (1) (1) University of Arkansas, Fayetteville, AR, U.S.A.
- 408-P The effects of nitrogen treatment on crack formation during wetting in rice**  
P. OLI (1), M. Talbot (1), P. Snell (1), L. Pallas (1) (1) NSW Department of Primary Industries, Yanco, Australia
- 409-P Impact of parboiling feedstock in the simultaneous fortification of rice with iron and zinc**  
J. PATINDOL (1), L. Fraggio (1), Y. Wang (1), A. Durand-Morat (1), E. Lii (1) (1) University of Arkansas, U.S.A.; (2) University of Arkansas, AR, U.S.A.
- 410-P Effect of soaking temperature on the healing of fissured rough rice kernels**  
E. LII (1), W. Domingues (1), J. Patindol (1), Y. Wang (1) (1) University of Arkansas, U.S.A.
- 411-P Enhanced GABA Synthesis in Rice Bran by Anaerobic Incubation and Glutamate Addition**  
S. OH (1), S. Lim (1), H. Kim (2) (1) Korea University, Seoul, South Korea; (2) Seolgok, Seoul, South Korea
- Wheat From A to Z**
- 501-P Effect of controlled germination on the functionality of sprouted whole-wheat flour**  
J. DING (1), G. Hou (2), S. Xiong (3), H. Feng (4), A. Dubat (5) (1) HZAU & UIUC, Urbana, IL, U.S.A.; (2) Wheat Marketing Center, Portland, OR, U.S.A.; (3) Huazhong Agricultural University (HZAU), Wuhan, Other, China; (4) University of Illinois at Urbana-Champaign (UIUC), Urbana, IL, U.S.A.; (5) Chopin Technologies, France
- 502-P Nitrogen and fungicide management for improved field performance and flour functionality in Ontario hard wheats**  
W. CAO (1), S. McClure (2), K. Janovicek (1), P. Johnson (2), J. Bock (1) (1) University of Guelph, Guelph, ON, Canada; (2) Middlesex Soil & Crop Improvement Association, ON, Canada
- 503-P Solubilization and Structural Characterization of Arabinoxylans from Wheat Bran**  
A. MENSE (1), Y. Shi (1) (1) Kansas State University, Manhattan, KS, U.S.A.
- 504-P Understanding the genetics of wheat quality using MAGIC populations**  
C. HOWITT (1), A. Verbyla (1), K. Verbyla (1), R. Appels (2), D. Diepeveen (3), L. Cato (4), T. Adriansz (4), M. Newberry (1) (1) CSIRO Agriculture, Australia; (2) Murdoch University, Australia; (3) Murdoch University and Department of Agriculture & Food WA, Australia; (4) Australian Export Grains Innovation Centre, Australia
- 505-P Development of a mouse model of hypersensitivity to alcohol-soluble proteins isolated from Ambassador soft wheat.**  
Y. JIN (1) (1) Michigan State University, east lansing, MI, U.S.A.
- 506-P Wheat bran albumins as organic matrices for artificial bio-mineralization processes**  
J. LUNA-VALDEZ (1), R. Balandran-Quintana (1), J. Azamar-Barrios (2), J. Mercado-Ruiz (1), G. Ramos-Clamont Montfort (1), A. Mendoza-Wilson (1), G. Chaquilla-Quilca (1) (1) Centro de Investigacion en Alimentacion y Desarrollo, A.C., Hermosillo Son., Mexico; (2) Centro de Investigación y Estudios Avanzados del IPN-Unidad Mérida, Mérida Yuc., Mexico
- 507-P Does Mill Type Affect Ranking of Hard Red Spring Wheat Cultivars Based on End-Use Quality?**  
S. SIMSEK (1), T. Baasandorj (1), J. Ohm (2) (1) North Dakota State University, Fargo, ND, U.S.A.; (2) USDA-ARS, Fargo, ND, U.S.A.
- 508-P Novel tempering solutions to reduce the microbial load of soft wheat flour with minimal impact on flour functionality**  
L. SABILLO (1), A. Bianchini (1), J. Stratton (1), D. Rose (1) (1) University of Nebraska - Lincoln, Lincoln, NE, U.S.A.
- 509-P Validating the impact of particle size effect on the overall Whole Wheat Flour (WWF) baking quality.**  
C. CARTER (1), T. Vang (1), D. Millers (2) (1) California Wheat Commission, Woodland, CA, U.S.A.; (2) Miller's Bake House, CA, U.S.A.
- 510-P Effects of geographical origin, genotype, and harvest year on stable isotope and multi-element fingerprints in wheat**  
Y. WEI (1), B. Guo (1), M. Li (1), H. Liu (1) (1) Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences, Beijing, China
- 511-P Comparisons of Whole Wheat Bread Baking Methods for Evaluation of Bread Quality**  
S. SIMSEK (1), K. Khalid (1) (1) North Dakota State University, Fargo, ND, U.S.A.
- 512-P Extraction efficiency of the wheat bran water-soluble proteins: a comparative study of two dialysis methods**  
J. MERCADO-RUIZ (1), I. Torres-Cinco (1), R. Balandran-Quintana (1), J. Luna-Valdez (1), G. Chaquilla-Quilca (1) (1) Centro de Investigacion en Alimentacion y Desarrollo, A.C., Hermosillo Son., Mexico
- 513-P Are salt and ascorbic acid needed to evaluate bread wheat flours for gluten strength using small-scale dough mixers?**  
C. ISAAK (1), H. Sapirstein (1) (1) University of Manitoba, Winnipeg, MB, Canada
- 514-P Effect of temperature and precipitation on protein composition and baking performance of hard red spring wheat**  
K. NAKAMURA (1), T. Marume (2), K. Hayakawa (2), B. Xiao Fu (3), N. Edwards (3) (1) Nisshin Flour Milling Inc., Tsukuba-city, Ibaraki, Japan; (2) Nisshin Flour Milling Inc., Japan; (3) Canadian Grain Commission, Canada
- 515-P Comparison of creep recovery test from gluten and dough: Effects of HMW-GS composition**  
Z. HERNÁNDEZ ESTRADA (1), P. Rayas-Duarte (1), J. Figueroa Cárdenas (2) (1) Oklahoma State University, Stillwater, OK, U.S.A.; (2) Cinvestav, Querétaro, Querétaro, Mexico
- 516-P Effect of sample preparation of wheat on Falling Number test**  
L. MO (1), G. Friedt (2), J. Hu (3), G. Guo (3) (1) Ardent Mills Wheat Research and Quality, Denver, CO, U.S.A.; (2) Ardent Mills, NE, U.S.A.; (3) Ardent Mills Wheat Research and Quality, CO, U.S.A.
- 517-P Fractionation of wheat bran albumins through size exclusion chromatography (SEC)**  
G. CHAQUILLA-QUILCA (1), R. Balandran-Quintana (1), J. Luna-Valdez (1), J. Mercado-Ruiz (1), A. Mendoza-Wilson (1), G. Ramos-Clamont Montfort (1), J. Azamar-Barrios (2) (1) Centro de Investigación en Alimentacion y Desarrollo, A.C., Hermosillo Son., Mexico; (2) Centro de Investigación y Estudios Avanzados del IPN-Unidad Mérida, Mérida Yuc., Mexico
- 518-P Cluster analysis of historical and modern hard red spring wheat cultivars based on parentage and HPLC of gluten proteins**  
M. MALALGODA (1), J. Ohm (2), S. Meinhardt (3), S. Chao (2), S. Simsek (3) (1) NDSU, Fargo, ND, U.S.A.; (2) USDA-ARS, Fargo, ND, U.S.A.; (3) North Dakota State University, Fargo, ND, U.S.A.
- 519-P Volatile organic compound profile of whole grain soft winter wheat**  
T. JI (1), M. Kang (2), B. Baik (3) (1) USDA ARS, U.S.A.; (2) USDA-ARS-CSWQRU/RDA-NICS Korea, U.S.A.; (3) USDA-ARS-CSWQRU, U.S.A.
- 520-P Effect of damaged starch and NaCl content on dough properties of a Canadian Western Red Spring wheat**  
A. STONE (1), C. Briggs (1), P. Hucl (1), M. Nickerson (1) (1) University of Saskatchewan, Saskatoon, SK, Canada

- 521-P Relationship between kernel hardness and gluten proteins characteristics**  
E. QUAYSON (1), F. Bonomi (2), K. Seetharaman (3), A. Marti (1) (1) University of Minnesota, Saint Paul, MN, U.S.A.; (2) University of Milan, Milan, Italy; (3) University of Minnesota (Deceased), Saint Paul, MN, U.S.A.
- 522-P Effect of genotype and growing location on grain and whole durum wheat flour and pasta quality**  
L. DENG (1), E. Elias (1), F. Manthey (1) (1) North Dakota State University, U.S.A.
- 523-P Quality attributes of Chinese steamed bread made from soft red winter wheat flours with waxy wheat flour substitution**  
F. MA (1), T. Ji (2), B. Baik (2) (1) Ohio State Univ/USDA-ARS-CSWQRU, U.S.A.; (2) USDA-ARS-CSWQRU, U.S.A.
- 524-P Sensory and Instrumental Measurement of Crispness in the Crumb Texture of Toasted Pan Breads.**  
H. OKUSU (1) (1) NIPPON FLOUR MILLS, Japan
- 525-P Effects of Whey Permeate on the Quality Attributes of Wheat Flour Dough and Its Pan Bread Products**  
G. HOU (1), T. Liu (2), Y. Ong (3), B. Lee (3), K. Gehring (3) (1) Wheat Marketing Center, Inc., Portland, OR, U.S.A.; (2) University of Minnesota, U.S.A.; (3) Wheat Marketing Center, Inc., U.S.A.
- 526-P Reduction in microbial load of soft wheat by tempering with organic acid and saline solutions**  
L. SABILLON (1), A. Bianchini (1), J. Stratton (1), D. Rose (1) (1) University of Nebraska - Lincoln, Lincoln, NE, U.S.A.

## Novel Starch and Protein Sources

- 601-P Observations on the influence of refinement on functional characteristics of intermediate wheatgrass**  
A. GOLDSTEIN (1), M. Sattler (2), T. Schoenfuss (2) (1) University of Minnesota, St Paul, MN, U.S.A.; (2) University of Minnesota, St. Paul, MN, U.S.A.
- 602-P Molecular Weight Distribution of Flour Proteins in Intermediate Wheatgrass : Impact on End-use Quality Parameters**  
C. GAJADEERA (1), J. Ohm (2), K. Whitney (3), C. Rahardjo (1), S. Simsek (3), B. Ismail (1) (1) University of Minnesota, St. Paul, MN, U.S.A.; (2) USDA-ARS Cereal Crops Research Unit, Fargo, ND, U.S.A.; (3) North Dakota State University, Fargo, ND, U.S.A.
- 603-P Using steam treatment to enhance storage stability of grains from perennial intermediate wheatgrass**  
A. MATHIOWETZ (1), C. Tyl (1), B. Ismail (1) (1) University of Minnesota, St. Paul, MN, U.S.A.
- 604-P Physicochemical properties and *in vitro* starch digestibility of potato starch/protein blends**  
Q. LIU (1), Z. Lu (2), R. Yada (3), E. Donner (2) (1) Agriculture and Agri-Food Canada, Guelph, ON, Canada; (2) Agriculture and Agri-Food Canada, Canada; (3) Food, Nutrition and Health Program, Faculty of Land and Food Systems, The University of British Columbia, Canada
- 605-P Effect of Yam Flour on Dough and Bread Quality**  
T. ASIYANBI (1), S. Simsek (1) (1) North Dakota State University, Fargo, ND, U.S.A.
- 606-P Soybean, whey and peanut protein isolates as thermal protective ingredients on microencapsulation of *L. plantarum* 299v**  
A. SANTACRUZ (1), S. Rodríguez-Barrientos (1), C. Chuck-Hernández (1) (1) Tecnológico de Monterrey, Monterrey, Mexico
- 607-P Relationship between viscosity of  $\beta$ -Glucan and its content and molecular weight for developing functional food barleys**  
E. ABDELAAL (1), T. Gamel (2), J. Fregeau-Reid (2), T. Choo (2) (1) Agriculture and Agri-Food Canada, Guelph, ON, Canada; (2) Agriculture and Agri-Food Canada, Canada; (3) Agriculture and Agri-Food Canada, Ottawa, ON, Canada
- 609-P Effects of defatted distillers' dried grains with solubles (DDGS) on dough and bread quality**  
S. MOAYEDI (1), J. Kallenbach (1), S. Simsek (1), C. Hall (1) (1) North Dakota State University, Fargo, ND, U.S.A.
- 610-P Modified starch as fat replacement: effect on flour and dough characteristics**  
K. WHITNEY (1), S. Simsek (1) (1) North Dakota State University, Fargo, ND, U.S.A.
- 611-P Modified starch as fat replacement: effect on bread quality**  
K. WHITNEY (1), S. Simsek (1) (1) North Dakota State University, Fargo, ND, U.S.A.
- 612-P Sponge-dough bread quality: using *Kokja* as a fermentation starter**  
I. CHOI (1), K. Kwak (2), M. Kim (2), M. Yoon (2), J. Kwak (2), B. Lee (2), C. Lee (2), W. Kim (2) (1) National Institute of Crop Science, RDA, Suwon, Korea; (2) National Institute of Crop Science, RDA, Korea
- 613-P Influence of baking bread dough placed between electrodes of varying distances in an electrical resistance oven [ERO]**  
S. ANGALET (1) (1) Angalet Group International, Elmhurst, IL, U.S.A.

## Methods for Grain Components

- 701-P Understanding the digestion kinetic of amylopectin: supramolecular structural heterogeneity governs  $\alpha$ -amylase hydrolysis**  
B. ZHANG (1), M. Niu (2), R. Lv (2), S. Xiong (2), S. Zhao (2), D. Qiao (3) (1) Huazhong Agricultural University, Wuhan, China; (2) Huazhong Agricultural University, China; (3) South China University of Technology, China
- 702-P Interlaboratory evaluation of AACC Method 32-45.01 for the measurement of total dietary fiber**  
B. MCCLEARY (1), A. Draga (1), J. Cox (1) (1) Megazyme International Ireland, Bray, Ireland
- 703-P Assessment of capturing setting and threshold for digital image analysis of bread crumb structure**  
C. ROSELL (1), R. Garzon (1) (1) Institute of Agrochemistry and Food Technology (IATA-CSIC), Paterna (Valencia), Spain
- 704-P Comparison of different nitrogen detection methods after Kjeldahl digestion of dietary fiber preparations**  
F. Urbat (1), P. Mueller (1), A. Hildebrand (1), D. Wefers (1), M. Bunzel (1) (1) Karlsruhe Institute of Technology, Karlsruhe, Germany
- 705-P Impact of DNA extraction methods on digital and real-time PCR for assessment of genetically engineered traits**  
T. DEMEKE (1), M. Holigroski (1), J. Malaban (2), M. Eng (1) (1) Canadian Grain Commission, Winnipeg, MB, Canada; (2) University of Manitoba, Winnipeg, MB, Canada
- 706-P A review of *in vitro* methods for measuring glycemic response of foods**  
P. OLI (1), A. Farahnaky (2), M. Majzoobi (3), C. Blanchard (4), L. Pallas (1) (1) NSW Department of Primary Industry, Wagga Wagga, Australia; (2) School of Biomedical Sciences, CSU, Australia; (3) NSW Department of Primary Industries, Yanco, Australia; (4) ARC Ind Transf Train Cent for Functional Grains and Graham Centre for Agricultural Innovation, Wagga Wagga, Australia

## Physical Chemical Modifications

- 801-P Milling value and behavior during milling of wheat samples from around the world**  
A. DUBAT (1), O. Le Brun (1), G. Vericel (1) (1) CHOPIN Technologies, Villeneuve la Garenne, France
- 802-P Influence of pre-milling thermal treatment of pulses on end product quality of processed foods**  
P. FROHLICH (1), G. Boux (2) (1) Canadian International Grains Institute, Winnipeg, MB, Canada; (2) Canadian International Grains Institute, Canada
- 803-P Impact of rice varieties and milling processes on rice flour and final bakery products quality**  
S. BRYAN (1), O. Le Brun (2), M. Berra (2), G. Vericel (2), A. Dubat (2) (1) Chopin Technologies, Olathe, KS, U.S.A.; (2) Chopin Technologies, Villeneuve-La-Garenne, France

- 804-P Effect of nitrogen fertilizer application rate on grain, milling and baking characteristics of soft red winter wheat**  
B. BAIK (1), L. Lindsey (2), E. Lentz (3) (1) USDA-ARS Soft Wheat Quality Laboratory, Wooster, OH, U.S.A.; (2) The Ohio State University, Department of Crop & Horticulture Science, Columbus, OH, U.S.A.; (3) The Ohio State University, Department of Extension, Findlay, OH, U.S.A.
- 805-P A systematic analysis of roll speed combinations and resulting roll differentials**  
H. DOGAN (1), Y. Chen (1) (1) Kansas State University, Manhattan, KS, U.S.A.
- 806-P Properties of extruded teff-oat composites**  
J. BYARS (1), M. Singh (2), S. Liu (2) (1) USDA/ARS/NCAUR, Peoria, IL, U.S.A.; (2) USDA/ARS/NCAUR, U.S.A.
- 807-P Mitigation of rancidity in whole wheat flour through extrusion**  
D. ROSE (1), S. Weier (1) (1) University of Nebraska, U.S.A.
- 808-P The effect of pea flour processing on the nutritional quality and end-product quality of extruded breakfast cereals**  
H. MASKUS (1), L. Bourre (2), A. Sarkar (2), P. Ebbinghaus (2) (1) Canadian International Grains Institute, Winnipeg, MB, Canada; (2) Canadian International Grains Institute, Canada
- 809-P Use of Grain Sorghum as the Primary Grain Ingredient in Premium Extruded Foods Designed for Cats**  
E. MAICHEL (1), J. Santana dos Reis (2), A. Cavalieri Carciofi (3), S. Alavi (4), A. Brar (1) (1) Kansas State University, Manhattan, KS, U.S.A.; (2) Student, Brazil; (3) Department of Veterinary Clinic and Surgery, College of Agrarian and Veterinarian Sciences, São Paulo State University (UNESP), Brazil; (4) Department of Grain Science, Kansas State University, U.S.A.
- 810-P Effect of extruded germinated cotyledon bean flour on cereal bars' protein content and starch digestibility**  
G. MONTEMAYOR MORA (1), D. Elizondo Salinas (1), M. Martínez Leal (1), J. de la Rosa Milán (1), E. Pérez Carrillo (1) (1) Tecnológico de Monterrey Campus Monterrey, Mexico
- 811-P Extrusion increases *in vitro* bioaccessibility of mineral elements in pinto bean (*Phaseolus Vulgaris* L.) flour**  
P. GULATI (1), F. Sumargo (2), M. Guttieri (2), S. Weier (2), D. Rose (2) (1) University of Nebraska-Lincoln, Lincoln, U.S.A.; (2) University of Nebraska-Lincoln, U.S.A.
- 812-P Effects of the extrusion processing variables on the physical properties of chickpea-barley extrudates**  
A. STONE (1), A. Yovchev (1), M. Nickerson (1), S. Hood-Niefer (2) (1) University of Saskatchewan, Saskatoon, SK, Canada; (2) Saskatchewan Food Industry Development Centre Inc., Saskatoon, SK, Canada
- 813-P Extrusion processing to develop snacks from garbanzo flour and distiller's dried grains developed for food applications**  
P. KRISHNAN (1), K. Muthukumarappan (1), P. Singha (1) (1) South Dakota State University, Brookings, SD, U.S.A.
- 814-P Effects of extruded bleached nixtamalized maize pericarp on dry masa flour physicochemical properties**  
G. MONTEMAYOR MORA (1), E. Pérez Carrillo (1), H. Velázquez Reyes (1), M. Rostro Alanís (1), S. Serna Saldivar (1) (1) Tecnológico de Monterrey Campus Monterrey, Mexico
- 816-P Efficacy of Carob Germ Flour in Processability of Gluten-Free Tortillas**  
J. SNELLING (1), B. Smith (1) (1) University of Idaho, Moscow, ID, U.S.A.
- 817-P Changes in protein, dietary fiber and starch content in hot-press wheat tortillas with amaranth, quinoa and oat flour**  
G. MONTEMAYOR MORA (1), M. Cruz Camacho (1), C. Picazo García (1), H. Velázquez Reyes (1), E. Pérez Carrillo (1) (1) Tecnológico de Monterrey Campus Monterrey, Mexico
- 818-P Solvent Retention Capacity (SRC) application to analyze Korean-favorite noodle flour quality**  
M. YOUNG (1), M. Kweon (1), S. Jeon (1) (1) Pusan National University, Korea
- 819-P Prediction of Chinese commercial noodles flours processing quality**  
A. DUBAT (1), H. Yu (2), G. Vericel (1) (1) CHOPIN Technologies, Ville-neuve la Garenne, France; (2) CHOPIN Technologies, Beijing, China
- 820-P Water mobility for Chinese dried noodles with varied gluten and moisture content during drying**  
Y. WEI (1), Y. Zhang (1), X. Yu (1), Z. Wang (1) (1) Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences, China; (2) Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences, Beijing, China
- 821-P Effect of misformulation of dry mixes on texture properties and shelf life of cake**  
T. MONTAGNER SOUZA (1), M. Payton (1), P. Rayas-Duarte (1) (1) Oklahoma State University, Stillwater, OK, U.S.A.
- 822-P High-ratio cake baking with alternative carbohydrates for potential sucrose replacement**  
M. KWEON (1), L. Slade (2), H. Levine (2) (1) Pusan National University, Other, Korea; (2) Food Polymer Science Consultancy, U.S.A.
- 823-P Influence of different vegetal proteins on the physico-chemical properties of both native and extruded maize flours**  
L. ROMÁN (1), Á. Bravo (2), M. Gómez (2) (1) University of Valladolid, Palencia, Spain; (2) College of Agricultural Engineering, University of Valladolid, Palencia, Spain

## The Physics of Dough

- 901-P Relationship between pasting parameters and length of paste drop of various starches**  
C. ZHANG (1), S. Lim (1), J. Kim (2) (1) Korea University, Seoul, South Korea; (2) Kangwon National University, Chuncheon, South Korea
- 903-P Effect of soluble, insoluble and gel forming fibers on extensional properties of dough**  
H. DOGAN (1), M. Fajardo-Perez (1), Y. Zhao (1) (1) Kansas State University, Manhattan, KS, U.S.A.
- 904-P Evaluating bread dough rheology using Warburton's Stickiness Rig & Texture Analyser (TA-XT2iPlus)**  
L. CATO (1), J. Ma (2), S. Cauvain (3) (1) AEGIC, Perth, Australia; (2) AEGIC, Australia; (3) BakeTran, United Kingdom
- 905-P Effect of hydrothermal treatment on rheological and functional properties of wheat flour**  
S. BRYAN (1), G. Tawil (1), S. Muller (2), G. Vericel (1) (1) CHOPIN Technologies, France; (2) REVTECH Process Systems, France
- 906-P Evaluation of wheat flour quality using the MIXOLAB® & SRC**  
L. CATO (1), J. Ng (1) (1) AEGIC, Australia
- 907-P The Impact of Flour Storage Conditions on Dough Rheological Properties and Overall Baking Performance**  
Y. BORSUK (1), R. Boyd (1), C. Wei (1), Y. Supeene (1) (1) Canadian International Grains Institute, Winnipeg, MB, Canada
- 908-P Rapid extensigraph protocol for measuring dough viscoelasticity and mixing requirement**  
B. DUPUIS (1), K. Wang (1), R. Cuthbert (2), B. Fu (1) (1) Canadian Grain Commission, Winnipeg, MB, Canada; (2) Semi-arid Prairie Agricultural Research Centre, Agriculture and Agri-Food Canada, Swift Current, SK, Canada

## Chemistry and Interactions

- 1001-P Effects of beta-glucan on casted thermoplastic starch films**  
A. BLENNOW (1), N. Ogradowicz (2), K. Kruczala (2), M. Mikkelsen (3), J. Kirkensgaard (3), J. Maigret (4), D. Lourdin (4), K. Mortensen (3) (1) University of Copenhagen, Frederiksberg C, Denmark; (2) Jagiellonian University, Poland; (3) University of Copenhagen, Denmark; (4) Institut National De La Recherche Agronomique, France
- 1002-P Effect of Chemical and Enzymatic Modifications on Starch and Naringenin Complexation**  
A. GONZALEZ (1), S. Lee (1), Y. Wang (1) (1) University of Arkansas, Fayetteville, AR, U.S.A.
- 1003-P Effect of degree of pectin methoxylation on aqueous stability of sorghum 3-deoxyanthocyanins**  
J. BRANTSEN (1), J. Awika (2) (1) Texas A&M University, College Station, TX, U.S.A.; (2) Texas A&M University, U.S.A.

- 1004-P Characterization of the low-molecular-weight glutenin subunit gene family members using a PCR-based marker approach**  
M. IBBA (1), J. Boehm (1), A. Kiszonas (2), C. Morris (2) (1) Washington State University, Pullman, WA, U.S.A.; (2) USDA-ARS Western Wheat Quality Laboratory, Pullman, WA, U.S.A.
- 1005-P Interactions Involved in the Formation of Starch-Tannin Complexes**  
D. AMOAKO (1), J. Akiwa (1) (1) Texas A&M University, College Station, TX, U.S.A.
- 1006-P Physicochemical, functional and digestion characteristics of thermally treated starches under acidic/alkaline conditions**  
J. DE LA ROSA MILLÁN (1), S. Serna Saldívar (1), J. Orona Padilla (1), V. Flores Moreno (1) (1) Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, AC, Mexico
- 1007-P Commercial pea protein emulsifying, foaming, and gelling functionality at various pH levels**  
A. KAISER (1), C. Hall III (1) (1) North Dakota State University, Fargo, ND, U.S.A.
- 1008-P The Amorphization of Vitamin B1 in Polymer Dispersions and Comparison of Stability in Amorphous and Crystalline States**  
S. ARIOGLU TUNCIL (1), L. Mauer (2) (1) Purdue University, West Lafayette, IN, U.S.A.; (2) Purdue University Food Science Department, U.S.A.
- 1009-P Control of physicochemical properties of leavened solid food and its bolus corresponding to dysphagia**  
M. MIURA (1), M. Ohnami (1) (1) Iwate University, Morioka, Japan
- 1010-P Effects of Hydrocolloids on Shear-thickening Behavior of Starch Dispersions and Its Impacts on Gastric Emptying Rate**  
F. FANG (1), O. Campanella (1), B. Hamaker (1) (1) Purdue University, West Lafayette, IN, U.S.A.
- 1011-P Porous starch performance to enzymatic hydrolysis and its relationship to their porous size distribution**  
C. ROSELL (1), Y. Benavent-Gil (1), A. Dura (1) (1) Institute of Agrochemistry and Food Technology (IATA-CSIC), Paterna (Valencia), Spain
- 1012-P Nitrogen solubility index of pH and phosphate induced defatted soybean meals**  
Y. WEI (1), B. Zhang (2), M. Li (2), J. Zhang (2), X. Su (2) (1) Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences/Key Laboratory, China; (2) Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences, China
- 1013-P Protein effects on heat transfer fouling using model thin stillage fluids**  
J. YOU (1), D. Johnston (2), V. Singh (3), M. Tumbleson (3), K. Rausch (3) (1) University of Illinois Urbana Champaign, Urbana, IL, U.S.A.; (2) Eastern Regional Research Center, ARS, USDA, U.S.A.; (3) University of Illinois Urbana Champaign, U.S.A.
- 1014-P Extent of phosphorylation in peanut and soy proteins using sodium trimetaphosphate**  
A. SÁNCHEZ-RESÉNDIZ (1), S. Serna-Saldívar (1), C. Chuck-Hernández (1), J. Rodríguez-Rodríguez (1), S. Rodríguez-Barrientos (2) (1) Tecnológico de Monterrey, Mexico; (2) Universidad Juárez del Estado de Durango, Mexico
- Late-Breaking**
- 1103-P Consumption pattern of selected retail flour-based products among pre-school children in Lagos, Nigeria**  
F. UCHENDU (1) (1) Department of Public and Environmental Health Sciences, School of Health Sciences, National Open University of Nigeria, Lagos, Nigeria
- 1104-P New Commercial Omega-3 Oil with High Oxidative Stability in Various Food Applications**  
A. SABERI (1) (1) Cargill, Plymouth, MN, U.S.A.
- 1105-P Protein quantity versus protein quality: where are we standing with predicting wheat baking quality?**  
M. LABUSCHAGNE (1), R. Lindeque (2), A. van Biljon (1) (1) University of the Free State, Bloemfontein, Other, South Africa; (2) Small Grains Institute, Bethlehem, Other, South Africa
- 1106-P Zein as a texture modifier for high-protein extruded products**  
S. KIRSCHMAN-ROLLAG (1), J. Kindelspire (1) (1) POET, Sioux Falls, SD, U.S.A.
- 1108-P Pound cake quality as a function of storage conditions**  
C. DÖRING (1), M. Jekle (1), T. Becker (2) (1) Technical University Munich - Institute of Brewing and Beverage Technology, Freising, Germany; (2) Technische Universität München - Lehrstuhl für Brau- und Getränketechnologie, Freising, Germany
- 1109-P The effect of sourdough fermentation on the phenolic profile of ivory and brown tef varieties.**  
A. SLIWINSKI (1), G. Ziegler (1) (1) Pennsylvania State University, University Park, PA, U.S.A.
- 1111-P Rheological characterization of new cereal: Tritordeum**  
A. DUBAT (1), L. Bosc-Bierne (2), O. Le Brun (2) (1) CHOPIN Technologies, Villeneuve-la-Garenne, Other, France; (2) CHOPIN Technologies, Villeneuve-la-Garenne, France
- 1113-P Reducing sodium in baked goods by control of bubble size distributions in dough**  
F. KOKSEL (1), R. Guillermic (1), X. Sun (1), A. Stone (2), A. Yovchev (2), N. Avramenko (2), M. Nickerson (2), M. Scanlon (1) (1) University of Manitoba, Canada; (2) University of Saskatchewan, Canada
- 1114-P Functional properties and *in vitro* protein digestibility of untreated and thermally-treated barley-pulse flour blends**  
C. CHIREMBA (1), K. Schultz (1), M. Nickerson (1) (1) University of Saskatchewan, Canada
- 1115-P Effect of *Lactobacillus plantarum* fermentation on the functional properties of pea protein concentrate**  
B. CABUK (1), M. Nickerson (1), D. Korber (1), T. Tanaka (1) (1) University of Saskatchewan, Saskatoon, SK, Canada
- 1116-P Prevention of product loss through the use of methoprene-treated packaging**  
D. SCHEFF (1), F. Arthur (1), B. Subramanyam (2) (1) USDA, Manhattan, KS, U.S.A.; (2) Kansas State University, Manhattan, KS, U.S.A.
- 1117-P The USDA Starch Research Method: An Analytical Tool for Total, Soluble, and Insoluble Starch in Agricultural Crops**  
M. COLE (1), G. Eggleston (2) (1) USDA-ARS-SRRC, New Orleans, LA, U.S.A.; (2) USDA-ARS-SRRC, U.S.A.
- 1118-P Commercial mill operational efficiency expressed as endosperm purity via quantitative chemical imaging**  
M. BOATWRIGHT (1), D. Wetzel (1) (1) Kansas State University, Manhattan, KS, U.S.A.
- 1119-P Effect of heat processing on immunoreactivity and *in vitro* digestibility of wheat gluten.**  
B. Mattioni (1), A. de Francisco (1), M. TILLEY (2) (1) Universidade Federal de Santa Catarina, Brazil; (2) USDA-ARS CGAHR, Manhattan, KS, U.S.A.

# LET'S BRING IT TO THE TABLE

MEDALLIONLABS.COM

## 2016 AACCI ANNUAL MEETING

October 23-26  
Savannah, Georgia



Your number one goal is to bring food consumers love to tables around the globe, but a cookie-cutter battery of tests isn't going to get you there. The experts at Medallion Labs invite you to join us at the AACCI Annual Meeting where we can work with you to craft a unique solution that takes you from R&D to grocery shelves to the plates of your customers.

### DROP BY BOOTH #300

OR CALL AHEAD TO SET UP A  
ONE-ON-ONE APPOINTMENT: 800-245-5615.



### ATTEND A PRESENTATION TO SEE OUR MASTERS IN ACTION

#### HOT TOPICS PRESENTATION:

**The New Labeling Regulations for Dietary Fiber: Facts, Challenges and Risks**

How will your Label Change with Regard to Dietary Fiber Under the New Regulations?

Monday, October 24, 10:30 am - 12:00 pm

#### SYMPOSIA:

**Protein Trends and Technologies: Health, Regulatory and Formulation Challenges**

A New, Rapid In-vitro PDCAAS Method for Replacing Animal Testing

Tuesday, October 25, 10:30 am – 12:00 pm

### Visit us at AACCI

Bühler's Food Innovation Center is a food-grade facility designed to support your efforts from feasibility study to product launch. Customized trials offer mixing, extrusion and drying for scale-up to production. Tailored training and extrusion workshops will help you improve your current processes, develop new processes and increase overall efficiency.

**Have a question? Let's talk about it.**  
[buhler.minneapolis@buhlergroup.com](mailto:buhler.minneapolis@buhlergroup.com)  
[www.buhlergroup.com](http://www.buhlergroup.com)

Experience the  
innovation  
**first hand.**

# EXHIBIT HALL

Visit the 2016 Annual Meeting Exhibit Hall to discover the latest products and services that advance the work of the industry. To help plan your time with the exhibitors and find your desired products and services, please use the following descriptions supplied directly from the exhibiting company. Exhibitors reserving space after this section went to press are listed in your Program Addendum.

## Exhibition Hall—Exhibit and Poster Hours

Hall A, CC

### Sunday, October 23

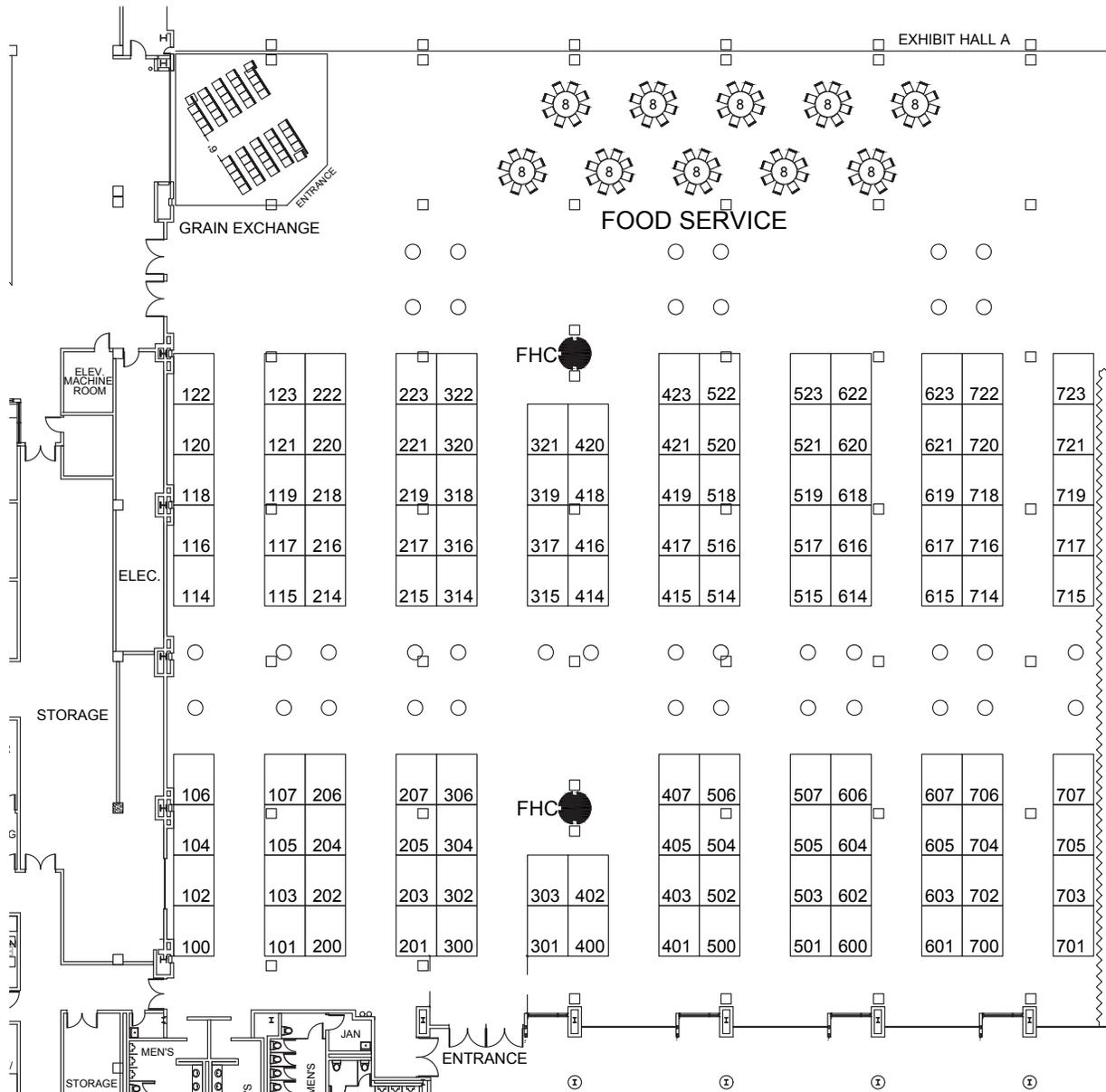
8:00 a.m. – 2:00 p.m. Exhibit Set-Up  
 4:30 – 6:30 p.m. Grand Opening Exhibition

### Monday, October 24

7:00 – 11:00 a.m. Poster Set-Up  
 11:30 a.m. – 6:00 p.m. Poster Viewing  
 3:00 – 6:00 p.m. Beer and Posters & Exhibit Hall Open  
 3:00 – 6:00 p.m. Grain Exchange  
 4:00 – 5:00 p.m. Student Poster Authors Present  
 5:00 – 6:00 p.m. Poster Authors Present (odd-numbered posters)

### Tuesday, October 25

8:00 a.m. – 2:15 p.m. Poster Viewing  
 12:00 – 2:15 p.m. Lunch and Ice Cream with the Exhibitors  
 12:00 – 2:15 p.m. Grain Exchange  
 1:00 – 2:00 p.m. Poster Authors Present (even-numbered posters)  
 2:30 – 6:00 p.m. Exhibit and Poster Take-Down



## Alphabetical Listing of Exhibitors

\*\* AACC International Corporate Member

- 721 AACC International Foundation**, 3340 Pilot Knob Road, St. Paul, MN 55121 U.S.A.; Telephone: +1.651.454.7250; Fax: +1.651.454.0766; Web: [www.aaccnet.org/membership/foundation](http://www.aaccnet.org/membership/foundation). Invest in the future of AACCI and the grain-based foods industry! Visit the Foundation Booth in the Exhibit Hall during exhibit hours to see this year's talented awardees. Learn more about the new Foundation focus areas and donate to support the future of our science!
- 405 ADM\*\***, P.O. Box 1470, Decatur, IL 62525 U.S.A.; Telephone: 1.844.441.FOOD; Web: [www.adm.com/food](http://www.adm.com/food); E-mail: [food@adm.com](mailto:food@adm.com). At ADM, our ingredients and flavors are designed to meet consumer demand across virtually every segment. Let our team of technical specialists, product developers, and food marketers innovate and formulate your next big idea.
- 407 ADM/Matsutani LLC\*\***, 500 Park Blvd., Suite 1240, Itasca, IL 60143 U.S.A.; Telephone: +1.630.250.8720; Fax: +1.630.250.8725; Web: [Fibersol.com](http://Fibersol.com); E-mail: [info@fibersol.com](mailto:info@fibersol.com). ADM/Matsutani will showcase Fibersol, the premier line of soluble dietary fiber ingredients. Fibersol offers solutions to many of today's formulation challenges. Whether formulators are seeking ways to reduce sugar and calories, meet clean label goals, or boost fiber content, Fibersol has a solution.
- 320 Agri-Neo Inc.\*\***, Unit 1, 435 Horner Avenue, Toronto, ON M8W 4W3 Canada; Telephone: +1.416.300.7729; Fax: +1.416.255.0111; Web: [www.agri-neo.com](http://www.agri-neo.com); E-mail: [info@agri-neo.com](mailto:info@agri-neo.com); Twitter: @AgriNeo. Neo-Pure—Validated intervention to control pathogens and unwanted microbes on seeds and grains, while keeping them raw, organic, and viable.
- 115 AGT Food and Ingredients**, 101-203 Stonebridge Blvd., Saskatoon, SK S7T 0G3 Canada; Telephone: +1.306-244-5645; Fax: +1.306.244.5643; Web: [www.agtfoods.com](http://www.agtfoods.com); E-mail: [rd@agtfoods.com](mailto:rd@agtfoods.com). AGT Food and Ingredients (TSX:AGT) is one of the largest suppliers of value-added pulses, staple foods, and food ingredients in the world. AGT buys pulses from farmers around our 40+ facilities located in the best pulse-growing regions in the world and ship our products to over 120 countries.
- 620 Amano Enzyme USA**, 1415 Madeline Lane, Elgin, IL 60124 U.S.A.; Telephone: 1.800.446.7652; Telephone 2: +1.847.649.0101; Fax: +1.847.649.0205; Web: [www.amano-enzyme.co.jp/aeu](http://www.amano-enzyme.co.jp/aeu); E-mail: [aeu.sales@amano-enzyme.com](mailto:aeu.sales@amano-enzyme.com). As a subsidiary of Amano Enzyme Inc. (Nagoya, Japan), Amano Enzyme USA supplies the North, Central, and South American markets with high-quality microbial source, non-GMO enzymes for the baking, food, dietary supplement, diagnostic, and pharmaceutical industries. Our enzymes are Kosher and Halal certified.
- 522 American Proficiency Institute**, 1159 Business Park Drive, Traverse City, MI 49686 U.S.A.; Telephone: 1.855.FOODPT1; Web: [www.foodpt.com](http://www.foodpt.com); E-mail: [foodtest@foodpt.com](mailto:foodtest@foodpt.com). American Proficiency Institute (API) offers independent proficiency testing programs for food chemistry and microbiology laboratories. We offer an extensive catalog of food relevant analytes in matrices such as meat, cereal, and dairy. API is accredited by A2LA to provide proficiency testing according to the requirements of ISO/IEC 17043:2010, Certificate #3094.01.
- 201 ANKOM Technology\*\***, 2052 O'Neil Road, Macedon, NY 14502 U.S.A.; Telephone: +1.315.986.8090; Fax: +1.315.986.8091; Web: [www.ankom.com](http://www.ankom.com); E-mail: [ntedesche@ankom.com](mailto:ntedesche@ankom.com); Facebook: [www.facebook.com/ANKOMTechnology/](http://www.facebook.com/ANKOMTechnology/). ANKOM Technology has served laboratories around the world with automated systems for fiber and fat determination. Our newest system automates dietary fiber according to AOAC 985.29, 991.43, 2009.01, and 2011.25 methods. Ask us about our other automated systems for crude fat, total fat, crude fiber, and detergent fiber.
- 315 Ardent Mills\*\***, 1875 Lawrence Street, Denver, CO 80202 U.S.A.; Telephone: 1.800.851.9618; Fax: +1.720.544.6799; Web: [www.ardentmills.com/](http://www.ardentmills.com/). Ardent Mills—A company dedicated to helping you grow in a challenging marketplace. A company that offers the industry's broadest range of flours, mixes, blends, and specialty products, customized to meet your needs and backed by unrivaled technical support, customer service, and the supply assurance of a coast-to-coast network.
- 518 Aromatic, Inc., A Bakels Co.**, 1244 Enterprise Blvd., De Pere, WI 54155 U.S.A.; Telephone: +1.920.639.0889; Web: [www.aromatic.eu](http://www.aromatic.eu); E-mail: [kurt.kreuter@aromatic.eu](mailto:kurt.kreuter@aromatic.eu). Aromatic Inc., the leader in highly functional emulsifier systems and freshness-enhancing ingredients for baked and sweet goods. Aromatic gel form emulsifier systems have performance that is truly unmatched. Aromatic liquid freshness enhancers incorporate more efficiently than powder form alternatives, while eliminating potentially unhealthy dust for employees.
- 419 Axiom Foods**, 4551 Glencoe Ave, Ste. 205, Marina del Rey, CA 90292 U.S.A.; Telephone: 1.800.711.3587; Web: [www.axiomfoods.com](http://www.axiomfoods.com).
- 603 Baker Perkins\*\***, 3223 Kraft Avenue SE, Grand Rapids, MI 49512 U.S.A.; Telephone: +1.616.784.3111; Fax: +1.616.784.0973; Web: [www.bakerperkins.com](http://www.bakerperkins.com); E-mail: [bpinc@bakerperkins.com](mailto:bpinc@bakerperkins.com); Facebook: [www.facebook.com/bakerperkinsgroup](http://www.facebook.com/bakerperkinsgroup); Twitter: @bakerperkins. Baker Perkins supplies complete process lines and unit machines for breakfast cereals from flakes to co-extruded pillows either traditional rotary steam cookers or twin-screw cooker extruders and are used in conjunction with flaking rolls, toasters, shredders, dryers, and syrup coating units to form versatile plants that can be easily extended.

- 217 Bastak Food Machine Med Imp Exp Trading Co.\*\***, Ivedik OSB 1354 Cad 1387 SOK NO 19 Yenimahalle, Ankara 06370 Turkey; Telephone: +90.312.395.67.87; Fax: +90.312.395.67.88; Web: [www.bastak.com.tr](http://www.bastak.com.tr); E-mail: [info@bastak.com.tr](mailto:info@bastak.com.tr); Facebook: [www.facebook.com/bastak.food?ref=hl](https://www.facebook.com/bastak.food?ref=hl); Twitter: @BASTAKFOOD. Our company, Bastak Gıda Makine Medikal Paz.Ith.Ihr.San.Tic.Ltd.Sti., was established in 1999 in Ankara, Turkey. Since then, we have begun to produce flour additives and quality-control apparatus. Our fundamental principle is the satisfaction of the valuable clients. We have exported our instruments to more than 50 countries and our 7,000 instruments are working well in different countries of the world. Our company gives great importance to R&D studies.
- 515 Bay State Milling Company\*\***, 100 Congress Street, Quincy, MA 02169 U.S.A.; Telephone: 1.800.553.5687; Web: [www.baystatemilling.com](http://www.baystatemilling.com); E-mail: [infobsm@bsm.com](mailto:infobsm@bsm.com); Facebook: [www.facebook.com/baystatemilling](https://www.facebook.com/baystatemilling); Twitter: @baystatemilling. Stay ahead of consumer demand for healthy, great-tasting products. Bay State Milling expertise spans the entire value chain, providing high-quality, plant-based ingredients for grain-based foods. Our portfolio includes traditional, ancient, sprouted, and specialty flours and grains along with edible seeds, all of which can be customized for your formulation.
- 
- See our ad on page 33.
- 
- 705 BENE0 Inc.\*\***, 201 Little Road, 1st Floor, Morris Plains, NJ 07950 U.S.A.; Telephone: +1.973.867.2140; Fax: +1.973.867.2141; Web: [www.beneo.com](http://www.beneo.com). BENE0 offers functional ingredients derived from chicory roots, beet sugar, rice, and wheat. BENE0 improves a product in its nutritional (less fat/calories/sugar, added fiber, energy management, digestive health) and technological (taste and texture) characteristics. Its expert departments (BENE0-Institute & Technology Center), BENE0 supports customers to development more balanced healthy foods.
- 103 Bepex International LLC\*\***, 333 Taft Street NE, Minneapolis, MN 55413 U.S.A.; Telephone: +1.612.331.4370; Telephone 2: 1.800.372.3739; Web: [www.BEPEX.com](http://www.BEPEX.com); E-mail: [info@bepex.com](mailto:info@bepex.com); Facebook: [www.facebook.com/BepexInternational/](https://www.facebook.com/BepexInternational/); Twitter: @bepexintl. Bepex International is a global leader in the design of innovative food processing equipment and systems. Our range of technology has been applied to the toughest applications for decades and continues to address the needs of industry today. From new process development to on-going process optimization, Bepex has the technology.
- 703 Best Cooking Pulses, Inc.\*\***, 110 10th Street NE; Portage La Prairie, MB R1N 1B5 Canada; Telephone: +1.204.857.4451; Fax: +1.204.239.6885; Web: [www.bestcookingpulses.com](http://www.bestcookingpulses.com); E-mail: [sales@bestcookingpulses.com](mailto:sales@bestcookingpulses.com); Facebook: [www.facebook.com/BestCookingPulses/](https://www.facebook.com/BestCookingPulses/); Twitter: @bestpulses. A Canadian family company celebrating 80 years of milling NA pulses: BEST flours (whole/split yellow/green pea, navy/pinto/black bean, chickpea, green/yellow/brown/red/French lentil), pea hull fiber/flours, split peas, and whole pulses, conventional or certified organic, BRC GFSI, CGC HACCP, Kosher, and WBEN certified. Pulse ingredients for healthy diets and a sustainable world.
- 107 BI Nutraceuticals**, 2384 E Pacifica Place, Rancho Dominguez, CA 90220 U.S.A.; Telephone: +1.310.669.2162; Fax: +1.310.637.3644; Web: [www.botanicals.com](http://www.botanicals.com); E-mail: [contact@botancials.com](mailto:contact@botancials.com). BI is the largest supplier of plant-based ingredients in the United States. We manufacture and supply hundreds of products, including botanical powders, extracts, fibers, proteins, vitamin mineral blends, and much more. BI is cGMP compliant as well as SQF, organic, Kosher, Halal, and gluten-free certified.
- 317 Bratney Companies**, 3400 109th Street, Des Moines, IA 50322 U.S.A.; Telephone: +1.515.270.2417; Fax: +1.515.276.2067; Web: [www.bratney.com](http://www.bratney.com); E-mail: [Bruce.Bratney@Bratney.com](mailto:Bruce.Bratney@Bratney.com). Bratney Companies is known for providing world-class equipment, processes, and solutions. We bring innovation and value with manufacturers such as Cimbria, Concetti, and BoMill. These, in addition to our complete offering of high-quality engineering, design, and construction, make us the company to consider for your next project.
- 215 Brookfield AMETEK\*\***, 11 Commerce Blvd., Middleboro, MA 02346 U.S.A.; Telephone: +1.508.946.6200; Fax: +1.508.946.6262; Web: [www.brookfieldengineering.com](http://www.brookfieldengineering.com); E-mail: [MA-MID.sales@ametek.com](mailto:MA-MID.sales@ametek.com); Twitter: @Brookfield-Eng. Brookfield is the world's leading manufacturer of viscometers and rheometers for laboratory and online process measurement and control. Brookfield also offers solutions for both texture analysis and powder flow applications in the form of our low-cost CT3 texture analyzer and PFT powder flow tester.
- 423 Bruker Optics**, 19 Fortune Drive, Billerica, MA 01821 U.S.A.; Telephone: +1.978.439.9899; Web: [www.bruker.com/nir](http://www.bruker.com/nir); E-mail: [info.bopt.us@bruker.com](mailto:info.bopt.us@bruker.com); Facebook: [www.facebook.com/pages/Bruker/202120533128](https://www.facebook.com/pages/Bruker/202120533128); Twitter: @bruker. Cereals are the cornerstone of daily nutrition for most people around the world. Bruker offers solutions for the analysis of wheat, various flour types, and coproducts based on FT-NIR spectroscopy. Ready-to-use calibration NIR packages give you results in seconds and are a highly cost-effective solution compared to conventional testing methods.
- 222 BUCHI Corporation**, 19 Lukens Drive, Suite 400, New Castle, DE 19720 U.S.A.; Telephone: +1.302.652.3000; Fax: +1.302.652.8777; Web: [www.buchi.com/us](http://www.buchi.com/us); E-mail: [us-sales@buchi.com](mailto:us-sales@buchi.com); Facebook: [www.facebook.com/buchilabequipment](https://www.facebook.com/buchilabequipment); Twitter: @BUCHI\_Corp. BUCHI is a leading solution provider in laboratory technology for R&D, quality control, and production worldwide. Our solutions for laboratory, industrial, and parallel evaporation, spray drying, melting point, preparative chromatography, extraction, distillation and digestion, Dumas and near-infrared spectroscopy meet the highest needs of customers around the globe.
- 205 Budenheim\*\***, 2219 Westbrooke Drive, Columbus, OH 43228 U.S.A.; Telephone: +1.614.345.2400; Web: [www.budenheim.com](http://www.budenheim.com); E-mail: [marti.babcock@budenheim.com](mailto:marti.babcock@budenheim.com). The world of food is finer place with Budenheim. For more than 100 years, we've provided premium ingredients for the meat, poultry, seafood, beverage, nutrition, dairy, and baking industries to put delicious and healthy food on the table every day.

- 415 Buhler Inc.\*\***, 13105 12th Avenue, Plymouth, MN 55441 U.S.A.; Telephone: +1.763.847.9900; Web: [www.buhler-group.com](http://www.buhler-group.com); E-mail: [buhler.minneapolis@buhlergroup.com](mailto:buhler.minneapolis@buhlergroup.com); Facebook: [www.facebook.com/buhlergroup](http://www.facebook.com/buhlergroup); Twitter: @buhler\_group. Buhler is your global technology partner for the food industry. We are a market leader in processing equipment for various industries, including grain milling and extrusion systems. The Buhler Food Innovation Center, located in Plymouth, MN, is a food-grade facility designed for research, education, and consumer-ready testing.
- 
- See our ad on page 44.**
- 
- 420 Butter Buds Food Ingredients**, 2330 Chicory Road, Racine, WI 53228 U.S.A.; Telephone: +1.262.598.9900; Web: [www.butterbuds.com](http://www.butterbuds.com). Butter Buds Food Ingredients manufactures functional concentrated dairy flavors. Our concentrated dairy flavors and concentrated specialty flavors capture the essence of butter, cheese, cream, cocoa, olive oil, and beer in powdered form to provide healthy ingredient alternatives for a variety of foods' multifunctional properties and exceptional cost-saving opportunities.
- 601 C.W. Brabender Instruments, Inc.\*\***, 50 East Wesley Street, South Hackensack, NJ 07606 U.S.A.; Telephone: +1.201.343.8425; Fax: +1.201.343.0608; Web: [www.cwbrabender.com](http://www.cwbrabender.com); E-mail: [foodsales@cwbrabender.com](mailto:foodsales@cwbrabender.com); Facebook: [www.facebook.com/cwbrabender/?ref=aymt\\_homepage\\_panel](http://www.facebook.com/cwbrabender/?ref=aymt_homepage_panel); Twitter: @CWBrabender. C.W. Brabender Instruments, Inc. for over 88 years has manufactured testing equipment designed for measuring and recording rheology, viscosity, processing development, laboratory scale compounding, extrusion, mixing applications and moisture of various materials and food systems utilized in the food industry.
- 
- See our ad on the inside front cover.**
- 
- 717 California Natural Products\*\***, 1250 E. Lathrop Road, Lathrop, CA 95330 U.S.A.; Telephone: +1.209.858.2525; Fax: +1.209.858.4076; Web: [www.cnp.com](http://www.cnp.com). California Natural Products (CNP) manufactures, in the United States, syrups and solids from rice and tapioca, providing natural and organic bakers and food product developers with syrups, glycemic control, sugar reduction, fat and saturated fat reduction, emulsification, and shelf-life extension, OU Kosher, QAI organic, SQF Level III, and GIG certified gluten free.
- 621 California Wheat Commission**, 1240 Commerce Avenue, Suite A, Woodland, CA 95776 U.S.A.; Telephone: +1.530.661.1292; Fax: +1.530.661.1332; Web: [www.californiawheat.org](http://www.californiawheat.org); E-mail: [info@californiawheat.org](mailto:info@californiawheat.org); Facebook: [www.facebook.com/California-Wheat-Commission-1707153862901109](http://www.facebook.com/California-Wheat-Commission-1707153862901109); Twitter: @wheatcalifornia. California Wheat Commission (CWC) was established in 1983 to support research that improves California wheat quality and marketability and to develop and maintain domestic and international markets. CWC is unique among the 19 wheat commissions in the country, it is the only wheat commission with its own on-site Milling and Baking Lab.
- 123 Carl Zeiss Spectroscopy GmbH**, 1 Zeiss Drive, Thornwood, NY 10594 U.S.A.; Telephone: +1.240.753.4766; Web: [www.zeiss.com](http://www.zeiss.com); E-mail: [craig.johnson@zeiss.com](mailto:craig.johnson@zeiss.com). Carl Zeiss Spectroscopy GmbH develops and produces optical gratings, optical modules, and spectrometer systems of highest quality, superior optical performance, robust design, and fast analysis. Our goal is to enable our customers to use the same spectroscopic method and apply it reliability from the laboratories into industrial environments.
- 304 C-Cell\*\***, 5/6 Asher Court, Lyncastle Way, Appleton, Warrington WA4 4ST United Kingdom; Telephone: +1.01925.860.401; E-mail: [info@calibrecontrol.com](mailto:info@calibrecontrol.com); Twitter: @ccellcolour. C-Cell is used globally in the food industry to analyze baked products to optimize process performance, evaluate ingredients, and establish objective data for quality control. C-Cell provides data for size, shape, crumb structure, and more to quickly assess the baking process without human error.
- 202 Cereal Ingredients, Inc.\*\***, 4720 South 13th Street, Leavenworth, KS 66048 U.S.A.; Telephone: +1.913.727.3434; Web: [Cerealingredients.com](http://Cerealingredients.com). BRC A+ manufacturer of Flav-R-Bite and Flav-R-Crisps to improve flavor, texture, protein, and/or fiber of your products. Cereal Ingredients, Inc. (CII) has its own R&D and applications labs offering customized solutions to your requirements. Our products are Kosher and Halal, gluten free, non-GMO, and certified organic formulas available. Visit our table for more information.
- 401 CHOPIN Technologies Inc.\*\***, 19955 West 162nd Street, Olathe, KS 66062 U.S.A.; Telephone: +1.913.815.3927; E-mail: [info@chopininc.com](mailto:info@chopininc.com). CHOPIN Technologies, a KPM Analytics subsidiary, specializes in methods and equipment for the quality control of cereals, flours, and their by-products. The company offers products and services to cereal industries needing to carry out analyses to satisfy operational requirements and current regulations and to meet customer specifications.
- 221 Clextral**, 14450 Carlson Circle, Tampa, FL 33626 U.S.A.; Telephone: +1.813.854.4434; Web: [www.clextral.com/](http://www.clextral.com/); E-mail: [jmontgomery@clextral.com](mailto:jmontgomery@clextral.com); Facebook: [www.facebook.com/ClextralTechnologies](http://www.facebook.com/ClextralTechnologies). Leveraging its core expertise in twin-screw technology, Clextral provides its customers with turnkey processing lines that integrate extruders, dryers, and ancillary equipment. Its reliable and innovative systems are quality and excellence benchmarks in its three key markets: Food & Feed, Green Industries, and Powder Industries.
- 616 CPM Wolverine Proctor LLC\*\***, 251 Gibraltar Road, Horsham, PA 19044 U.S.A.; Telephone: +1.215.443.5200; Fax: +1.215.443.5206; Web: [www.wolverineproctor.com](http://www.wolverineproctor.com); E-mail: [sales@cpmwolverineproctor.com](mailto:sales@cpmwolverineproctor.com). Complete line of energy-efficient dryers, coolers, impingement ovens (Jet-Tube or Parajet nozzle), Jetzone fluid bed dryers/puffers/toasters, shredding mills, flaking mills, and batch cookers. Our Ultra Sanitary SCFIII Dryer design has been taken to a whole new level of cleanliness. Tech Center offers continuous and batch testing.
- 
- See our ad on page 13.**
-

- 316 Dakota Specialty Milling, Inc.\*\***, 4014 15th Avenue N., Fargo, ND 58102 U.S.A.; Telephone: +1.701.282.9656; Telephone 2: 1.844.633.2746; Fax: +1.701.282.9743; Web: www.DakotaSpecialtyMilling.com; E-mail: sales@dakotaspecialtymilling.com. Dakota Specialty Milling is the trusted global supplier of custom milled whole-grain, multigrain, ancient grain, and gluten-free blends for bakers and processors of variety breads, cereals, crackers, nutrition bars, snacks, and donuts. We focus on creating and delivering the highest levels of quality, consistency, performance, and value.
- 321 David Michael & Company\*\***, 10801 Decatur Road, Philadelphia, PA 19154 U.S.A.; Telephone: +1.215.632.3100; Web: www.dmflavors.com. Technology, creativity, and innovation are core drivers at our flavor company. At David Michael & Company, we provide the fresh ideas and forward thinking our clients expect from a product development partner. At David Michael, our only limitation is our imagination.
- 622 Delavau Food Partners\*\***, 10101 Roosevelt Blvd., Philadelphia, PA 19154 U.S.A.; Telephone: 1.855.671.FOOD; Web: www.DelavauFood.com; E-mail: foodpartnersinfo@delavau.com. Delavau Food Partners combines bakery and formulation know-how with a limitless toolbox of ingredients to deliver smarter, fresher, better solutions—including clean label alternatives—for foodservice and packaged goods brands. Learn more about how Delavau helps improve shelf-life, eating experience, and more at DelavauFood.com or call 855.671.3663 (FOOD).
- 505 Domino Specialty Ingredients**, Suite 400, One North Clematis Street, West Palm Beach, FL 33401 U.S.A.; Telephone: +1.561.248.1852; Web: www.dominospecialtyingredients.com; E-mail: lynda.law@asr-group.com. Domino Specialty Ingredients offers essential ingredients for good food. Our quality ingredients include rice products, malts and molasses, organic sugars, and sweetener solutions to meet our customers' needs and deliver results. We proudly offer products verified in compliance with the non-GMO project standard and fair trade-certified cane sugars.
- 
- See our ad on page 4.**
- 
- 706 DSM Food Specialties USA, Inc.\*\***, 3502 North Olive Road, South Bend, IN 46628 U.S.A.; Telephone: +1.574.237.6974; Web: www.dsm.com/food. Improve your baking performance in bread, cakes, and biscuits with DSM's portfolio of baking enzymes. Our natural, easy-to-use baking solutions empower you to optimize raw materials; streamline production processes; and produce consistently high-quality baked goods that look, feel, and taste great.
- 704 DSM Nutritional Products\*\***, 45 Waterview Blvd., Parsippany, NJ 07054 U.S.A.; Telephone: +1.518.372.5155; Web: www.dsm.com/human-nutrition; E-mail: jaleen.sherrange@dsm.com. DSM Nutritional Products is the world's premier ingredient and solutions provider for food and beverage manufacturers worldwide. Our product portfolio includes vitamins, minerals, nutritional lipids, nutraceuticals, carotenoids, and unmatched fortification expertise provided by our Fortitech premixes service.
- 
- See our ad on page 64.**
- 
- 418 DuPont Nutrition & Health**, 4 New Century Parkway, New Century, KS 66031 U.S.A.; Telephone: 1.800.255.6837; Web: www.food.dupont.com. DuPont Nutrition & Health, one of the world's leading specialty food ingredient companies, is committed to providing customers with safe, nutritious, healthy, and affordable products that sustain and enrich the lives consumers worldwide. Our broad portfolio of ingredients and industry experts provide our customers the right solutions to their challenges.
- 519 EnviroLogix\*\***, 500 Riverside Industrial Pkwy., Portland, ME 04103 U.S.A.; Telephone: +1.207.797.0300; Telephone 2: 1.866.408.4597; Fax: +1.207.553.2121; Web: envirologix.com; E-mail: info@envirologix.com; Facebook: www.facebook.com/envirologix; Twitter: @EnviroLogix. EnviroLogix is a global leader in the development of dynamic testing technology. It's simple to detect mycotoxins and GMOs on the reliable QuickScan system, and patented DNABLE technology detects pathogens and GMOs at the molecular level in minutes. Test with confidence using fast, on-site solutions, backed by knowledgeable industry experts.
- 514 Enzyme Development Corporation\*\***, 505 Eighth Avenue, 15th Floor, New York, NY 10018-6505 U.S.A.; Telephone: +1.212.736.1580; Web: EnzymeDevelopment.com; E-mail: info@EnzymeDevelopment.com. Enzyme Development Corporation (EDC) has been providing enzymes to the baking and food processing industry with a wide range of enzymes for over 60 years. Let's talk about how enzymes can to enhance quality of your product and optimize your production. Headquarters in New York City, with production and labs in Scranton, PA.
- 
- See our ad on page 17.**
- 
- 421 Erkaya Laboratory Instruments & Flour Improvers Co., Ltd.**, IVOGSAN Matbaacilar San. Sit., 1515. Sk. No: 6 Ostim, Ankara, 06374 Turkey; Telephone: +90.312.3952986; Fax: +90.312.3950878; Web: www.erkayagida.com.tr/Eng; E-mail: info@erkayagida.com.tr. Erkaya is one of the leading manufacturers of Turkey in the field of wheat and flour analyzing instruments and ingredients for flour mills and bakeries. Erkaya exports 80% of its production to many countries worldwide by the contribution of its professional work force and very competitive quality and price.
- 523 Firmenich, Inc.**, 250 Plainsboro Road, Plainsboro, NJ 08536 U.S.A.; Telephone: +1.609.452.1000; Web: www.firmenich.com. Firmenich is the world's largest privately owned company in the fragrance and flavor business. Our passion for smell and taste and a commitment to our clients lies at the heart of our success. We are renowned for our creativity and innovation, as well as our exceptional understanding of consumer trends.
- 615 Florida Food Products\*\***, 2231 W. CR 44, Eustis, FL 32726 U.S.A.; Telephone: +1.352.357.4141; Web: www.floridafood.com; E-mail: contact@floridafood.com. Florida Food Products is a leading international agribusiness specializing in plant extracts as healthy and natural ingredients for the food, pharmaceutical, nutraceutical, and agricultural industries. Florida Food Products has been growing and procuring agricultural inputs, ensuring access to the finest produce at peak processing conditions to provide a superior product.

- 604 FONA International\*\***, 1900 Averill Road, Geneva, IL 60134 U.S.A.; Telephone: +1.630.578.8600; Fax: +1.630.578.8601; Web: [www.fona.com](http://www.fona.com); E-mail: [tcesario@fona.com](mailto:tcesario@fona.com); Facebook: [www.facebook.com/FONAIInternational](http://www.facebook.com/FONAIInternational); Twitter: @FONA\_Intl. At FONA, we know that clean is not a checkbox. It's a continuum. No matter where your product fits, we can help. FONA has been creating clean flavors for over 10 years and our seven core values drive us to foster incredible partnerships. Your challenges are our challenges. Let's talk.
- 322 Food Ingredient Solutions, LLC**, 10 Malcolm Avenue, Unit 1, Teterboro, NJ 07608 U.S.A.; Telephone: +1.201.440.4377; Fax: +1.201.440.4211; Web: [www.foodcolor.com](http://www.foodcolor.com); E-mail: [jgreaves@foodcolor.com](mailto:jgreaves@foodcolor.com). Food Ingredient Solutions, LLC is a leading manufacturer of colors, particularly natural colors, and natural antioxidants. We offer custom formulation, color matching, and stability testing.
- 718 Formulaction Inc.**, 6660 N. High Street, Suite 2A, Worthington, OH 43085 U.S.A.; Telephone: +1.614.888.0023; Web: [www.formulaction.com](http://www.formulaction.com); E-mail: [sales@formulactionusa.com](mailto:sales@formulactionusa.com). Formulaction manufactures two lines of instruments, including a micro rheology system & Turbiscan stability analyzer. The Rheolaser utilizes diffusing wave spectroscopy to measure the viscoelastic properties of a sample at rest. Turbiscan stability analyzer enables you predict stability measuring creaming, sedimentation, flocculation, and particle size in high-concentration solutions without dilution.
- 223 FOSS\*\***, 8091 Wallace Road, Eden Prairie, MN 55344 U.S.A.; Telephone: +1.952.974.9892; Web: [www.fossna.com](http://www.fossna.com); E-mail: [info@fossna.com](mailto:info@fossna.com); Twitter: @FOSS\_Americas. FOSS analytical solutions provide the global standard in grade trading and calibrations based on 30 years of harvest data. We offer highly accurate solutions for all stages from farm to end product. This ensures our customers achieve the highest product consistency and profitability. Analyze protein, moisture, ash, and other parameters.
- 318 FruitSmart, Inc.**, 201 N. Euclid Road, Grandview, WA 98930 U.S.A.; Telephone: +1.509.882.9956; Web: [www.fruitsmart.com](http://www.fruitsmart.com); E-mail: [dwatkins@fruitsmart.com](mailto:dwatkins@fruitsmart.com). FruitSmart, Inc. processes fruits into NFC juices and juice concentrates. These juices produce fruit pomaces that are further processed into fruit fibers, that are sold into the baking, cereal, and snack food industries. FruitSmart acquired Mayan Sun and offers real fruit powders and granules that are sold into the same industries.
- 723 GNT USA**, 660 White Plains Road, Tarrytown, NY 10591 U.S.A.; Telephone: +1.914.524.0600; Fax: +1.914.524.0681; Web: [www.gnt-group.com](http://www.gnt-group.com); E-mail: [info@gntusa.com](mailto:info@gntusa.com). GNT is the global leader in natural color ingredients made exclusively from fruits, vegetables, and edible plants. GNT's flagship brands include Exberry natural colors and Nutri-food. GNT strives to offer innovative and versatile solutions that are crucial to the always-evolving food and beverage industry.
- 701 Gold Coast Ingredients\*\***, 2429 Yates Avenue, Commerce, CA 90040 U.S.A.; Telephone: +1.323.724.8935; Telephone 2: 1.800.352.8673; Fax: +1.323.724.9354; Web: [www.goldcoast-inc.com](http://www.goldcoast-inc.com); E-mail: [info@goldcoastinc.com](mailto:info@goldcoastinc.com). Gold Coast Ingredients is a privately held and operated, wholesale flavor and color manufacturer located in Commerce, California. With us you will find organic, natural, non-GMO, allergen-free, and other flavors available as liquids, powders, powder encapsulations, emulsions, and advanced extractions. Our flavors are compatible with any product requirements.
- 504 Golden Peanut & Tree Nuts**, 100 North Point Center East, Suite 400, Alpharetta, GA 30022 U.S.A.; Telephone: +1.770.752.8258; Web: [www.goldenpeanut.com](http://www.goldenpeanut.com); E-mail: [patricia.demark@goldenpeanut.com](mailto:patricia.demark@goldenpeanut.com); Facebook: [www.facebook.com/GoldenPeanutCompany](http://www.facebook.com/GoldenPeanutCompany); Twitter: @golden\_peanut. Squeeze some fat out of a peanut, and what is left? Protein—in the form of peanut flour. Delivering terrific nutty flavor, aroma, color, and more. Visit Golden Peanut & Tree Nuts to meet our team and learn more on the future of nut proteins in food applications.
- 306 Grain Millers, Inc.\*\***, 10400 Viking Drive, Suite 301, Eden Prairie, MN 55344 U.S.A.; Telephone: 1.800.232.6287; Web: [www.grainmillers.com](http://www.grainmillers.com); E-mail: [darren.schubert@grainmillers.com](mailto:darren.schubert@grainmillers.com). Processor of oats, soft and hard wheats, barley, rye, triticale, flax, corn, ancient grains, and natural oat fibers. Intrinsic dietary fiber, soluble fibers, nutritive sweeteners, and natural binders are also produced at Grain Millers. Certified gluten free, organic, project non-GMO, and BRC audited. Blending, custom milling, and packaging are available.
- 
- See our ad on page 36.**
- 
- 204 Grain Processing Corporation\*\***, 1600 Oregon Street, Muscatine, IA 52761 U.S.A.; Telephone: +1.563.264.4265; Fax: +1.563.264.4289; Web: [www.grainprocessing.com](http://www.grainprocessing.com); E-mail: [food.sales@grainprocessing.com](mailto:food.sales@grainprocessing.com). Quality ingredients for the food industry from Grain Processing Corporation (GPC): Maltrin maltodextrins and corn syrup solids, Maltrin QD (quick dispersing) maltodextrins and corn syrup solids, Pure-Cote coating/film-forming starches, Inscosity cold water swelling modified starches, Pure-Set thin-boiling starches, Pure-Gel stabilized starches, and Pure-Dent unmodified and specialty starches.
- 606 Great Plains Analytical Laboratory\*\***, 9503 N. Congress Avenue, Kansas City, MO 64153 U.S.A.; Telephone: +1.816.891.7337; Telephone 2: +1.303.774.8262; Telephone 3: +1.316.617.7883; Web: [www.gpalab.com](http://www.gpalab.com); E-mail: [gstewart@gpalab.com](mailto:gstewart@gpalab.com) or [rkendrick@gpalab.com](mailto:rkendrick@gpalab.com). The leading cereal chemistry laboratory in the United States. Supplies the industry with a full range of analytical services, including microbiology, nutritional label testing, bake testing, rheology, insect frag, and more. ISO 17025 certified with constantly expanding services and located centrally in the heart of the United States.
- 
- See our ad on the inside back cover.**
-

**206 Healthy Food Ingredients\*\***, 4666 Amber Valley Parkway, Fargo, ND 58104 U.S.A.; Telephone: 1.844.275.3443; Web: www.HFIfamily.com; E-mail: info@HFIfamily.com. Healthy Food Ingredients (HFI) is a family of specialty ingredient brands that includes SK Food, Hesco, Suntava, and Heartland Flax that provide non-GMO, organic, certified transitional, gluten-free, and identity preserved ingredients, including grains, seeds, pulses, soybeans, expeller oils, and Suntava Purple Corn, processed to meet unique application needs.

---

See our ad on page 58.

---

**619 HunterLab**, 11491 Sunset Hills Road, Reston, VA 20190 U.S.A.; Telephone: +1.703.471.6870; Web: hunterlab.com; E-mail: info@hunterlab.com. HunterLab is the recognized industry leader in the field of color measurement, with over 60 years of experience in developing the most consistently accurate, most cost-effective color measurement solutions specifically designed and optimized for your industry. See why HunterLab is the world's true measure of color.

**119 ICC—International Association for Cereal Science and Technology**, Marxergasse 2, Vienna 1030 Austria; Telephone: +4317077202; Web: www.icc.or.at; E-mail: office@icc.or.at. ICC is the pre-eminent international association in the field of cereal science and technology, committed to international cooperation through the dissemination of knowledge, conducting research, and developing standard methods that contribute to advance innovation, improve food quality, food safety, and food security for the health and well-being of all people.

**314 ICL Food Specialties\*\***, 622 Emerson Road, Suite 500, St. Louis, MO 63141 U.S.A.; Telephone: 1.855.ICL.SPEC; Web: www.iclfood.com. ICL Food Specialties is a global leader in providing ingredient systems that deliver texture and stability to food and beverage products. Highly skilled application experts partner with customers to create innovations that satisfy ever-changing market and consumer trends.

---

See our ad on page 3.

---

**319 Ingression Incorporated**, 5 Westbrook Corporate Center, Westchester, IL 60154 U.S.A.; Telephone: +1.708.551.2600; Web: www.ingredion.us. Ingression Incorporated is a leading global ingredient solutions provider. We turn corn, tapioca, potatoes, and other vegetables and fruits into value-added ingredients and solutions that deliver texture, nutrition, and sweetness for food, beverage, and other industries. Our ingredients make cereals crunchy, cereal bars more nutritious, and baked goods sweeter.

**400 Innophos, Inc.**, 259 Prospect Plains Road, Building A, Cranbury, NJ 08512 U.S.A.; Telephone: +1.609.495.2495; Telephone 2: 1.866.631.7394, bakery option 2; Fax: +1.609.860.8433; Web: www.Innophos.com; E-mail: barbara.heidolph@innophos.com. Innophos Ingredients for Life include a complete range of ingredients for leavening and fortification as well as other functional ingredients for grain-based applications. Innophos has developed new leavening options including the Regal family to meet regulations. Our focus is on innovation and customer solutions to meet market demands.

**506 J. RETTENMAIER USA\*\***, 16369 US 131 Highway, Schoolcraft, MI 49087 U.S.A.; Telephone: +1.269.679.2340; Telephone 2: 1.877.895.4099; Fax: +1.269.679.5667; Web: www.jrsusa.com; E-mail: info@jrsusa.com. J. RETTENMAIER USA manufactures many of the highly purposeful, label-friendly fibers that contribute both nutritional and functional benefits that are sold both domestically and internationally. J. Rettenmaier is the world's largest manufacturing company for insoluble fibers and offers the most diverse portfolio compared to any other fiber company.

**600 Lallemand Baking Solutions\*\***, 1620 Prefontaine, Montreal, QB H1W 2N8 Canada; Telephone: +1.514.251.3620; Fax: +1.514.255.6861; Web: www.lallemand.com. Lallemand Baking Solutions is the specialty baking ingredients business of Lallemand Inc., the Canadian yeast and bacteria company supplying essential enzyme-based dough conditioners, Fermaid yeast-based dough relaxers, Florapan baking cultures and aromatic yeast, as well as customized solutions to the global baking industry. Ask us about your clean label needs.

**605 Malt Products Corporation\*\***, P.O. Box 898, Saddle Brook, NJ 07663 U.S.A.; Telephone: +1.201.845.4420; Fax: +1.201.845.0028; Web: www.maltproducts.com; E-mail: john@maltproducts.com. Your source for natural, organic, GMO-free sweeteners: malt, molasses, tapioca syrup, rice syrup, invert sugar, corn sweeteners, honey agave syrup, oat syrup, and black malt extract.

**105 Manildra Group USA**, 4210 Shawnee Mission Parkway, Suite 312A, Shawnee Mission, KS 66205 U.S.A.; Telephone: +1.913.362.0777; Fax: +1.913.362.0674; Web: www.manildrausa.com; E-mail: info@manildrausa.com. Manildra Group USA is dedicated to being the leader in the wheat gluten industry. A focus on quality, service, and reliability ensures we continually supply the highest quality ingredients. Our proteins and starches cover a wide range of functionality, suitable for products ranging from bakery to frozen food to snacks.

**300 Medallion Labs\*\***, 9000 Plymouth Avenue N., Minneapolis, MN 55427 U.S.A.; Telephone: 1.800.245.5615; Telephone 2: +1.763.764.4453; Fax: +1.763.764.4010; Web: www.medallionlabs.com; E-mail: info@medlabs.com; Twitter: @MedallionLabs. Since 1974, Medallion Labs, a division of General Mills, has been a leader in analyzing food products. Our expertise includes nutritional analysis, shelf-life studies, sensory evaluations, microscopy analysis, technical consulting, and product performance evaluations. The convenience of all these capabilities in one lab makes Medallion the ideal partner.

---

See our ad on page 43.

---

- 715 Megazyme**, Bray Business Park, Southern Cross, Wicklow A98 YV29 Ireland; Telephone: +353.1.2861220; Web: www.megazyme.com; E-mail: cs@megazyme.com; Facebook: www.facebook.com/megazyme/; Twitter: @megazyme. Megazyme develops, manufactures, and supplies innovative test kits and reagents for cereals, food, wine, and biofuels industries. These kits measure components including dietary fibre, sugars, organic acids, and enzymes.
- 
- [See our ad on page 8.](#)
- 
- 602 MGP Ingredients, Inc.\*\***, 100 Commercial Street, Atchison, KS 66002-2666 U.S.A.; Telephone 1.866.547.2122; Fax: +1.913.360.5717; Web: www.mgpingredients.com; E-mail: sales@mgpingredients.com. In business since 1941, MGP is a leading U.S. producer of specialty wheat proteins and starches, providing non-GMO solutions that offer a host of nutritional, sensory, and functional benefits. These include Fibersym RW resistant starch, a rich source of dietary fiber; Optein hydrolyzed protein, which shows clinically indicated results in aiding muscle recovery; Arise protein isolates, that deliver elevated protein levels; and TruTex, a highly versatile textured protein.
- 617 Navas Instruments**, 200 Earnhardt, Conway, SC 29526 U.S.A.; Telephone: +1.843.347.1379; E-mail: info@navas-instruments.com. Moisture and ash analyzers (multiple sample) for the food industry. Reliable, easy to use, and very precise, ask for our analysis data in flour. We have the fastest and more productive TGA analyzers to save you money and make the food lab more productive.
- 101 Nexira\*\***, 15 Somerset Street, Somerville, NJ 08876 U.S.A.; Telephone: +1.908.707.9400; Fax: +1.908.707.9405; Web: www.nexira.com; E-mail: info-usa@nexira.com. Nexira is a global leader in natural ingredients and botanical extracts for food, nutrition, and dietary supplements. Nexira built its reputation as the world leader in acacia gum and now manufactures a wide range of functional and nutritional ingredients, antioxidants, and botanicals for weight management, sports nutrition, and digestive health.
- 722 Northern Crops Institute\*\***, NDSU Dept. 7400, P.O. Box 6050, Fargo, ND 58108-6050 U.S.A.; Telephone: +1.701.231.7736; Web: www.northern-crops.com/; E-mail: natsuki.fujiwara@ndsu.edu; Facebook: www.facebook.com/NorthernCropsInstitute. Northern Crops Institute (NCI) is a collaborative effort among ND, MN, MT, and SD to support promotion and marketing development of crops grown in the region. NCI provides technical services to food industry, commodity traders, and educators both domestically and internationally.
- 214 NP Analytical Laboratories\*\***, 1 Checkerboard Square, Saint Louis, MO 63164 U.S.A.; Telephone: 1.800.423.6832; Telephone 2: +1.314.982.1310; Fax: +1.314.982.1078; Web: www.npal.com; E-mail: npal@purina.com. NP Analytical Laboratories provides comprehensive testing of foods and ingredients for nutrients, contaminants, microbial pathogens, and quality indicators. Services include measurement of vitamins, minerals, dietary fiber, fatty acids, sugars, amino acids, preservatives, fat quality and stability, pesticides, mycotoxins, and complete nutrition labeling services. Microbial shelf-life and challenge studies also offered.
- 
- [See our ad on page 25.](#)
- 
- 719 Nutraceuticals World**, 70 Hilltop Road, Suite 3000, Ramsey, NJ 07446 U.S.A.; Telephone: +1.201.880.2231; Telephone 2: +1.201.825.2552; Fax: +1.201.825.0553; Web: www.nutraceuticalsworld.com. *Nutraceuticals World*, the premier international magazine serves manufacturers of functional foods, sports and nutritional beverages, and dietary supplements, providing valuable information on marketing trends, ingredient sourcing, packaging, and manufacturing equipment. *Nutraceuticals World* is an important resource for industry executives worldwide. Nutraceuticals-World.com offers exclusive online articles. Nutraceuticals-WorldNOW offers timely industry news.
- 117 PacMoore Products, Inc.**, 1844 Summer Street, Hammond, IN 46320 U.S.A.; Telephone: 1.866.610.2666; Web: www.pacmoore.com; E-mail: jwarren@pacmoore.com; Facebook: www.facebook.com/PacMooreProducts; Twitter: @PacMoore. PacMoore's extrusion, blending, spray drying, sifting, repacking, and consumer packaging capabilities meet virtually any food standard including organic, gluten-free, Kosher, Halal, and non-GMO. PacMoore has two BRC AA+ rated production facilities in Indiana and an innovation lab for extrusion product development in Gridley, IL. Visitors are always welcome.
- 707 Palsgaard\*\***, 101 Gibraltar Drive, Suite 2B, Morris Plains, NJ 07950 U.S.A.; Telephone: +1.973.998.7951; Fax: +1.973.998.7953; Web: www.palsgaard.com; E-mail: direct@us.palsgaard.com. Palsgaard developed the world's first commercial emulsifier a century ago—and we haven't stopped inventing since. We not only develop new emulsifiers or emulsifier/stabilizer solutions, we also help food manufacturers make the most of them in their products within bakery, confectionery, ice cream, margarine, mayonnaise, and dressings.
- 
- [See our ad on page 7.](#)
- 
- 303 Perten Instruments\*\***, 6444 S. 6th Street Road, Springfield, IL 62712 U.S.A.; Telephone: +1.217. 585.9440; Fax: +1.217.585.9441; Web: www.perten.com; E-mail: info@perten.com. Instruments, Experience, and Expertise: Stop by our booth to discuss the latest in instruments and methods for cereal chemists and grain processors. Discuss NIR, falling number, process instrumentation, flour and dough rheology, texture, and much more. We'll have experts on hand to discuss your testing needs and ideas.
- 
- [See our ad on page 1.](#)
- 
- 301 Perten Instruments AB\*\***, Instrumentvägen 31, Hägersten SE-126 53 Sweden; Telephone: +46.8.505.80.900; Web: www.perten.com; E-mail: info@perten.com. 50+ years providing instruments, experience, and expertise to cereal chemists around the world. As part of the PerkinElmer group, we are looking to bring even more solutions, instruments, techniques, and methods to meet your needs.
- 
- [See our ad on page 1.](#)
-

- 520 Prayon**, 1610 Marvin Griffin Road, Augusta, GA 30906 U.S.A.; Telephone: 1.800.477.2966; Fax: +1.706.771.3469; Web: [www.prayon.com](http://www.prayon.com); E-mail: [customerserviceusa@prayon.com](mailto:customerserviceusa@prayon.com). With more than a century of industrial experience, Prayon is a world leader in the phosphate sector. Our group manufactures an extensive range of phosphate products that are used in food, industrial, and pharmaceutical applications.
- 714 QuallySense AG\*\***, Unterrietstrasse 2a, Glattbrugg 8152 Switzerland; Telephone: +41448243580; Web: [www.qualysense.com](http://www.qualysense.com); E-mail: [info@qualysense.com](mailto:info@qualysense.com); Twitter: @qualysense. QuallySense is pioneering the QSorter technology, a sophisticated high-speed single kernel robot that measures the compositional and physical quality of each grain and sorts it accordingly. The QSorter Explorer is currently being used in breeding and priming toward diet-specific and premium foods.
- 207 Radio Frequency Co., Inc.\*\***, 150 Dover Road, Millis, MA 02054 U.S.A.; Telephone: +1.508.376.9555; Fax: +1.508.376.9944; Web: [www.macrowave.com](http://www.macrowave.com); E-mail: [JNPutnam@radiofrequency.com](mailto:JNPutnam@radiofrequency.com). Radio Frequency's Macrowave pasteurization systems, operating at 40 MHz, optimizes depth of penetration and uniformity of heating, ensures microbe kill without denaturing proteins or altering organoleptic qualities of products. Our Macrowave is ideal for batch or conveyorized, bagged or bulk, applications. Since 1946, Radio Frequency has produced turn-key RF heating/drying systems.
- 218 R-Biopharm, Inc.\*\***, 870 Vossbrink Drive, Washington, MO 63090 U.S.A.; Telephone: 1.877.789.3033; Fax: 1.866.922.5856; Web: [www-r-biopharm.com](http://www-r-biopharm.com); E-mail: [sales@r-biopharm.com](mailto:sales@r-biopharm.com); Twitter: @R-Biopharm. R-Biopharm specializes in diagnostic test kits for the food and feed industry. We offer the most validated test kits for gluten analysis as well as the largest portfolio of food allergen test kits commercially available. Our catalog includes test kits for vitamin analysis, mycotoxins, GMO analysis, hormones, antibiotics, and microbiology.
- 416 REPCO\*\***, 1835 E. North Street, Salina, KS 67402-1460 U.S.A.; Telephone: 1.800.234.7174; Fax: +1.785.825.8908; Web: [www.repcoworld.com](http://www.repcoworld.com); E-mail: [info@repcoworld.com](mailto:info@repcoworld.com). Since 1946, REPCO has provided the milling and baking industries with innovative ideas, services, and products second to none. Essential vitamin and mineral premixes; standard-setting flour additive services; Micro-ingredient dispensing systems; and complete analytical laboratory services. Contact us today for all your ingredient premix needs.
- 517 Revtech**, PA de Champgrand, 50 allée des Abricotiers, Lorient sur Drôme 26270 France; Telephone: +33.4.75.60.16.33; Web: [www.revtech-process-systems.com](http://www.revtech-process-systems.com); E-mail: [revtech@revtech.fr](mailto:revtech@revtech.fr). Revtech designs continuous units for the heat treatment of cereal products. Units from 500 to 10,000 lbs./h can be used for various applications: drying; pasteurizing; stabilizing; toasting; heat treating flour to modify its properties. Same machine can be used for flour, bran, germs, flakes, and grains.
- 623 Richardson Milling\*\***, 2800 One Lombard Place, Winnipeg, MB R3B 0X8 Canada; Telephone: 1.877.984.7246; Web: [www.richardson.ca](http://www.richardson.ca); E-mail: [millinginfo@richardson.ca](mailto:millinginfo@richardson.ca); Facebook: [www.facebook.com/RichardsonInternational](http://www.facebook.com/RichardsonInternational); Twitter: @Richardson\_INTL. Richardson Milling offers a broad range of whole grain oat ingredients, including oat groats, flakes, flour, and bran, as well as innovative coated whole grains and granola clusters. Our value-added flaked and expanded whole grain-based ingredients are designed to be an integral component in your products.
- 516 ROHA USA**, 5015 Manchester Avenue, St. Louis, MO 63110 U.S.A.; Telephone: 1.888.533.7642; Web: [www.roha.com](http://www.roha.com); E-mail: [roha.usa@rohagroup.com](mailto:roha.usa@rohagroup.com). The fastest growing manufacturer of natural and synthetic colors, specializing in the food and beverage industries. ROHA offers custom color solutions in liquid, powder, emulsion, and dispersions for all of your global application needs.
- 219 Sage V Foods, LLC**, 1470 Walnut Street, Suite 202, Boulder, CO 80302 U.S.A.; Telephone: +1.303.449.5626; Telephone 2: +1.901.483.0937; Fax: +1.303.317.3390; Web: <http://sagevfoods.com>; E-mail: [sales@sagevfoods.com](mailto:sales@sagevfoods.com). Sage V Foods, a supplier of value-added rice ingredients, is introducing Ryzé, a gluten-free line of rice flour baking mixes. They are produced solely from whole grain rice flour and rice flours, with no starches or gums added. Their performance and taste are exemplary.
- 502 Sensus America, Inc.\*\***, 100 Lenox Drive, Suite 104, Lawrenceville, NJ 08648 U.S.A.; Telephone: +1.646.452.6140; Fax: +1.646.452.6150; Web: [www.inspiredbyinulin.com](http://www.inspiredbyinulin.com); E-mail: [contact@sensus.us](mailto:contact@sensus.us). Sensus America is a leading manufacturer of a complete line of chicory root fiber ingredients. These products possess a unique range of functional properties that can improve taste and texture in a wide range of applications, including the ability to replace fat and sugar.
- 501 Siemer Specialty Ingredients**, 111 W. Main Street, Teutopolis, IL 62467 U.S.A.; Telephone: +1.217.857.2231; Telephone 2: +1.217.857.3131; Web: [www.siemersi.com](http://www.siemersi.com); E-mail: [rferguson@siemermilling.com](mailto:rferguson@siemermilling.com). Siemer Specialty Ingredients (SSI) is a manufacturer of heat-treated wheat flour, bran, and germ. Naturally replace modified food starch, chlorinated flour, and stabilized bran and germ. Have an application where flour could be consumed raw? We have flour that has been treated for a drastic reduction in microbiological activity for consumer safety.
- 220 Solvaira Specialties**, 50 Bridge Street, North Tonawanda, NY 14120 U.S.A.; Telephone: 1.888.698.1936; Web: [www.solvaira.com](http://www.solvaira.com); E-mail: [info@solvaira.com](mailto:info@solvaira.com). Solvaira Specialties offers a wide range of high-quality, advanced solutions for food manufacturers. Solvaira provides customized solutions from dietary fibers and anti-caking agents to excipients, filter aids, and so much more. Contact us today to discover how we can work for you.

- 417 Sosland Publishing Company**, 4801 Main Street, Suite 650, Kansas City, MO 64112 U.S.A.; Telephone: +1.816.756.1000; Fax: +1.816.968.2876; Web: [www.soslandpublishing.com](http://www.soslandpublishing.com). Leading the grain and food industries for a century—For over 90 years, thousands of food industry professionals have relied on Sosland's print and digital information resources. They trust the timely information, news, and commentary from a broad selection of publications and online offerings.
- 607 SPEX SamplePrep**, 65 Liberty Street, Metuchen, NJ 08840 U.S.A.; Telephone: +1.732.623.0465; Web: [www.spexsampleprep.com](http://www.spexsampleprep.com); E-mail: [learnmore@spex.com](mailto:learnmore@spex.com); Facebook: [www.facebook.com/SPEXSamplePrep/](http://www.facebook.com/SPEXSamplePrep/); Twitter: @spexsampleprep. SPEX SamplePrep is an industry leader in lab equipment for plant tissue applications. The 2010 Geno/Grinder is a high-throughput homogenizer, and the Freezer/Mill is a cryogenic mill that grinds tough samples in a vial immersed in liquid nitrogen. Our products extract DNA/RNA from plant tissue while preserving the sample's integrity.
- 618 Sweetener Supply**, 9501 Southview Avenue, Brookfield, IL 60513 U.S.A.; Telephone: +1.708.588.8400; Fax: +1.708.588.8460; Web: [www.sweetenersupply.com](http://www.sweetenersupply.com); E-mail: [sales@sweetenersupply.com](mailto:sales@sweetenersupply.com). Established in 1990, Sweetener Supply is a premier manufacturer and marketer of quality food ingredients, including honey, cellulose fiber, molasses, granulated sugar, brown sugars, liquid sucrose, and invert syrups. Please visit our website for more information on Sweetener Supply. Where quality comes naturally.
- 716 Texture Technologies Corp.\*\***, 6 Patton Drive, Hamilton, MA 01982 U.S.A.; Telephone: +1.978.468.9969; Telephone 2: +1.914.472.0531; Fax: +1.914.472.0532; Web: [www.texturetechnologies.com](http://www.texturetechnologies.com); E-mail: [marc@texturetechnologies.com](mailto:marc@texturetechnologies.com); Facebook: [www.facebook.com/Texture-Technologies-394971054047226/](http://www.facebook.com/Texture-Technologies-394971054047226/); Twitter: @texturereport. Texture Technologies' commitment to the cereal industry is as strong as ever! We have deployed our instrument, software, fixtures, training, test methods, and applications support to solve thousands of cereal-industry texture challenges. We would be pleased to use our knowledge and experience to your solve your texture measurement challenges.
- 507 The Mennel Milling Company\*\***, P.O. Box 806, 619 S. Vine Street, Fostoria, OH 44830 U.S.A.; Telephone: 1.800.688.8151 x-95210; Fax: +1419.436.5150; Web: [www.mennel.com](http://www.mennel.com); E-mail: [dbraun@mennel.com](mailto:dbraun@mennel.com). A family-owned flour milling company with mills in OH, MI, IL, VA, and NC, milling soft, hard, and spring wheat flours. We also offer a variety of heat-treated flours, whole wheat flours, and non-chlorinated cake flours. Ask us about our pre-gelatinized Xpress flour.
- 702 Thymly Products, Inc.**, 1332 Colora Road, Colora, MD 21917 U.S.A.; Telephone: +1.410.658.4820; Web: [www.thymlyproducts.com](http://www.thymlyproducts.com). Thymly Products, Inc. has been manufacturing functional ingredients since 1967. With our R&D department, we can perform bake tests and product comparisons to save you time and money, and/or provide technical assistance via a site visit or assist you over the phone with any baking or manufacturing questions.
- 402 Tree Top, Inc.\*\***, 220 E. Second Avenue, P.O. Box 248, Selah, WA 98942 U.S.A.; Telephone: +1.509.698.1435; Fax: +1.509.698.1474; Web: [www.treetop.com](http://www.treetop.com); E-mail: [jeannie.swedberg@treetop.com](mailto:jeannie.swedberg@treetop.com). Tree Top is one of the world's largest producers of fruit products and primary ingredient supplier to the U.S. market and global food and beverage industry. Our portfolio includes dried apples, fruit powders, frozen fruit, fruit juice concentrates, fruit purées, and preps. In essence...more fruit, more forms, more possibilities.
- 403 Unity Scientific**, 113 Cedar Street, S-3, Milford, MA 01757 U.S.A.; Telephone: 1.800.445.0759; Telephone 2: +1.203.740.2999; Web: [www.unityscientific.com](http://www.unityscientific.com); E-mail: [info@unityscientific.com](mailto:info@unityscientific.com); Facebook: [www.facebook.com/unity.scientific/](http://www.facebook.com/unity.scientific/); Twitter: @UnityScientific. Unity Scientific is proud to offer the new flour analyzer based on the SpectraStar XT NIR analyzer. This analyzer produces protein, ash, moisture, and other quality parameters in 30 seconds. The flour analyzer is ready to go at-line or in a QC Lab. Unity Scientific is part of KPM Analytics.
- 521 U.S. Highbush Blueberry Council**, 865 Woodside Way, San Mateo, CA 94401 U.S.A.; Telephone: +1.650.340.8563; Web: [www.blueberrytech.org](http://www.blueberrytech.org); E-mail: [tpayne@blueberrytech.org](mailto:tpayne@blueberrytech.org). The U.S. Highbush Blueberry Council (USHBC) is the industry organization representing growers and processors from throughout the United States. USHBC conducts product and health research as well as consumer and food industry promotions. We will preview our new Real Blueberry Seal to manufacturers and celebrate our Blueberry Centennial!
- 614 VICAM, A Waters Business**, 34 Maple Street, Milford, MA 01757 U.S.A.; Telephone: +1.508.482.4935; Fax: +1.508.482.3605; Web: [www.vicam.com](http://www.vicam.com); E-mail: [vicam@vicam.com](mailto:vicam@vicam.com). VICAM, A Waters Business, is dedicated to developing USDA- and AOAC-approved diagnostics for the detection of mycotoxins. Trusted in over 100 countries and supported by world-class customer service, VICAM products are designed for real-world testing environments. Contact us today.
- 200 Wenger Manufacturing, Inc.\*\***, 714 Main Street, Sabetha, KS 66534 U.S.A.; Telephone: +1.785.284.2133; Fax: +1.785.284.3771; Web: [www.wenger.com](http://www.wenger.com); E-mail: [mle@wenger.com](mailto:mle@wenger.com). Wenger—One source advantage for cereal and snack production. As the pioneer in extrusion cooking systems, Wenger continues to guide the industry with unique designs and new innovations. As the leading manufacturer of single and twin screw extruders, we can provide the extruder that is best suited for your needs.

---

[See our ad on the back cover.](#)

---

## NUMERICAL LISTING OF EXHIBITORS

**BOLD** type indicates an advertising company. Page numbers for advertisers are listed in the Advertisers Index on page 2.

101	Nexira	423	Bruker Optics
103	Bepex International LLC	501	Siemer Specialty Ingredients
105	Manildra Group USA	502	Sensus America, Inc.
107	BI Nutraceuticals	504	Golden Peanut & Tree Nuts
115	AGT Food and Ingredients	<b>505</b>	<b>Domino Specialty Ingredients</b>
117	PacMoore Products, Inc.	506	J. RETTENMAIER USA
119	ICC—International Association for Cereal Science and Technology	507	The Mennel Milling Company
123	Carl Zeiss Spectroscopy GmbH	<b>514</b>	<b>Enzyme Development Corporation</b>
<b>200</b>	<b>Wenger Manufacturing, Inc.</b>	<b>515</b>	<b>Bay State Milling Company</b>
201	ANKOM Technology	516	ROHA USA
202	Cereal Ingredients, Inc.	517	Revttech
204	Grain Processing Corporation	518	Aromatic, Inc., A Bakels Co.
205	Budenheim	519	EnviroLogix
<b>206</b>	<b>Healthy Food Ingredients</b>	520	Prayon
207	Radio Frequency Co., Inc.	521	U.S. Highbush Blueberry Council
<b>214</b>	<b>NP Analytical Laboratories</b>	522	American Proficiency Institute
215	Brookfield AMETEK	523	Firmenich, Inc.
217	Bastak Food Machine Med Imp Exp Trading Co.	600	Lallemand Baking Solutions
218	R-Biopharm, Inc.	<b>601</b>	<b>C.W. Brabender Instruments, Inc.</b>
219	Sage V Foods, LLC	602	MGP Ingredients, Inc.
220	Solvaira Specialties	603	Baker Perkins
221	Clextrol	604	FONA International
222	BUCHI Corporation	605	Malt Products Corporation
223	FOSS	<b>606</b>	<b>Great Plains Analytical Laboratory</b>
<b>300</b>	<b>Medallion Labs</b>	607	SPEX SamplePrep
<b>301</b>	<b>Perten Instruments AB</b>	614	VICAM, A Waters Business
<b>303</b>	<b>Perten Instruments</b>	615	Florida Food Products
304	C-Cell	<b>616</b>	<b>CPM Wolverine Proctor LLC</b>
<b>306</b>	<b>Grain Millers, Inc.</b>	617	Navas Instruments
<b>314</b>	<b>ICL Food Specialties</b>	618	Sweetener Supply
315	Ardent Mills	619	HunterLab
316	Dakota Specialty Milling, Inc.	620	Amano Enzyme USA
317	Bratney Companies	621	California Wheat Commission
318	FruitSmart, Inc.	622	Delavau Food Partners
319	Ingredion Incorporated	623	Richardson Milling
320	Agri-Neo Inc.	701	Gold Coast Ingredients
321	David Michael & Company	702	Thymly Products, Inc.
322	Food Ingredient Solutions, LLC	703	Best Cooking Pulses, Inc.
400	Innophos, Inc.	<b>704</b>	<b>DSM Nutritional Products</b>
401	CHOPIN Technologies Inc.	705	BENEO Inc.
402	Tree Top, Inc.	706	DSM Food Specialties USA, Inc.
403	Unity Scientific	<b>707</b>	<b>Palsgaard</b>
405	ADM	714	QalySense AG
407	ADM/Matsutani LLC	<b>715</b>	<b>Megazyme</b>
<b>415</b>	<b>Buhler Inc.</b>	716	Texture Technologies Corp.
416	REPCO	717	California Natural Products
417	Sosland Publishing Company	718	Formulation Inc.
418	DuPont Nutrition & Health	719	Nutraceuticals World
419	Axiom Foods	721	AACC International Foundation
420	Butter Buds Food Ingredients	722	Northern Crops Institute
421	Erkaya Laboratory Instruments & Flour Improvers Co., Ltd.	723	GNT USA

# Thank You 2016 AACCI Annual Meeting Sponsors

## CONTRIBUTOR SPONSORS



## SUPPORTER SPONSORS



## SESSION & WORKSHOP SPONSORS



## STUDENT PRODUCT DEVELOPMENT COMPETITION SPONSORS

Ardent Mills  
Frito-Lay Inc.

Ingredion Inc.  
Kellogg Co.

McCormick & Co., Inc.  
Starquest F.O.O.D. Consulting LLC

## BEST STUDENT RESEARCH PAPER COMPETITION SPONSORS

General Mills

Kellogg Co.

# Thank You

## AACCI International Corporate Members!

Thank you to our corporate members, who contribute their knowledge, expertise, and professional involvement to AACCI.

Corporate member support keeps AACCI's industry relationships strong and helps elevate cereal grain science throughout the world. Contact information for all of our AACCI Corporate Members is available on the AACCI website.

ADM Milling Co.	DSM Nutritional Products	Neogen Corp.
ADM/Matsutani LLC	EnviroLogix Inc.	Nexira
AgriFood Technology	Enzyme Development Corp.	Nisshin Seifun Group Inc.
Agri-Neo Inc.	Florida Food Products, Inc.	Northern Crops Institute
Agtron	FONA International	NP Analytical Laboratories
AIB International	Foss Analytical AB	Nutrimix Flour Mills
ANKOM Technology	FOSS North America Inc.	Oatly AB
Ardent Mills	FSFI Centre for Grain Quality Assurance	OMIC USA Inc.
ARVALIS Institut Du Vegetal	General Mills	P&H Milling Group Limited
Atyab Foodtech Trading & Services LLC	George Weston Foods	Palsgaard Incorporated
Baker Perkins	Glanbia Nutritionals	Perten Instruments
Bastak Food Machine Medical	Gold Coast Ingredients, Inc.	Perten Instruments AB
Bay State Milling Company	Grain Craft	Polypro Intl. Inc.
Bell Flavors & Fragrances	Grain Millers, Inc.	Productos Ramo S.A.
BENEO	Grain Processing Corporation	QualySense AG
BENEO GmbH	Grains & Legumes Nutrition Council	R-Biopharm Inc.
Bepex International LLC	Granotec Grupo	Radio Frequency Co. Inc.
Best Cooking Pulses Inc.	Great Plains Analytical Laboratory	Red Star Yeast Co. LLC
Brabender GmbH & Co. KG	Hans-Dieter-Belitz-Institute for Cereal Grain Research	REPCO
Briss Malt & Ingredients Co.	Haubelt Laborgerate GmbH	Richardson Milling
Brolite Products Inc.	Hesco (A Healthy Food Ingredients Brand)	Riviana Foods Inc.
Brookfield AMETEK	Hunter, Walton & Co., Inc.	Romer Labs Inc.
Budenheim USA Inc.	ICL Food Specialties	Seaboard Overseas Trading Group
Buhler Inc.	ILC Micro-Chem	SEMO Milling, LLC
C-Cell c/o Calibre Control	InfraReady Products (1998) Ltd.	Sensient Colors LLC
C.W. Brabender Instruments, Inc.	Inspectorate America Corp	Sensus America, Inc.
California Natural Products	J. Rettenmaier USA LP	Shur-Gain Nutreco Canada
Campden BRI	Kellogg Co.	Stable Micro Systems Ltd.
Canadian Grain Commission	Kudos Blends Ltd.	Suzanne's Specialties
Canadian International Grains Institute	Lallemand Baking Solutions	Symrise Inc.
Cargill	MagiBake Intl. Inc.	Takenouchi Barley Processing Inc.
Cereal Ingredients	Malt Products Corp.	Texture Technologies Corp.
Cereal Science and Technology South Africa	MANE, Inc.	The Hershey Co.
CHOPIN Technologies	McCormick & Co., Inc.	The Southern African Grain Laboratory NPC
Corbion Caravan	Mennel Milling Co., The	The XIM Group LLC
Corpus Christi Grain Exchange	Merieux NutriSciences	Top Health Ingredients Inc.
Cotecna Ukraine Limited	MGP Ingredients, Inc.	Tree Top Inc.
CPM Wolverine Proctor	Miller Milling Company	United Flour Mill Co. Ltd.
Dakota Specialty Milling, Inc.	Minot Milling	US Energy Partners LLC
David Michael & Co.	Monsanto Co.	USDA-GIPSA Technology & Science Division
Deibel Laboratories	Morton Salt Inc.	Wenger Manufacturing Inc.
Delavau	National Manufacturing Co.	
DSM Food Specialties USA, Inc.		

Nourishing your customers.  
One healthy ingredient at a time.

*Cultivating goodness.™*



Healthy Food Ingredients delivers more than a family of specialty ingredients brands. We supply the goodness that helps food manufacturers like you nourish consumers.

**HEALTHY INGREDIENTS**

Our portfolio includes non-GMO, organic, certified transitional, gluten-free and identity preserved pulses, soybeans, grains, seeds, flax, expeller oils, and our signature products Suntava Purple Corn® and AncientGrisps™.

**ASSURANCE**

Our vast processing capabilities and diverse network of growers ensure safe and reliable ingredients customized to meet your unique application needs.

Goodness.

It's what we bring to the table.

[HFIfamily.com](http://HFIfamily.com)



Our HFI Family



## 2016 AACC INTERNATIONAL AWARDEES

Congratulations to AACCI's most prestigious awardees who are being recognized for their significant contributions to the field of cereal grain science. Join us on Sunday, October 23, at 3:00 p.m. in the Opening General Session to celebrate their accomplishments. Some awardees will also provide an award lecture during the meeting as noted. Biographies on each of the awardees are available online at [www.aaccnet.org/membership/awards](http://www.aaccnet.org/membership/awards).



**AACC International Fellow**  
Charles R. Hurburgh, Jr., Iowa State University, U.S.A.



**Phil Williams Applied Research Award**  
Yong-Cheng Shi, Kansas State University, U.S.A.  
*His award lecture "Developing Starch Products for Nutritional, Food, and Industrial Applications" will take place on Monday at 8:30 a.m. during the Analytical Measures for Cereal Chemistry Technical Session in Room 200-201, CC.*



**Edith A. Christensen Award for Outstanding Contributions in Analytical Methods**  
Wayne R. Moore, Wayne Moore Consulting, U.S.A.  
*His award lecture "Laboratory Data (Mis)-Management" will take place on Monday at 8:30 a.m. during the Impact of Rheology on Product Quality Technical Session in Room 105-106, CC.*

### Texture Technologies Quality Research Award—Best Paper



*Dough Strain Hardening Properties as Indicators of Baking Performance*  
Padmanaban G. Krishnan, Julie Y. Kindelspire, Karl D. Glover, and Melanie Caffé-Treml; South Dakota State University  
*Cereal Chemistry* May/June 2015, Volume 92, Number 3, Pages 293-301.



**Excellence in Teaching Award**  
Joseph M. Awika, Texas A&M University, U.S.A.



**Young Scientist Research Award**  
Mario Jekle, Technische Universität München, Germany  
*His award lecture "Departure from Current Processes: Novel Structure Design Approaches for Cereal-Based Foods" will take place on Tuesday at 10:30 a.m. during the Practical Applications for Classic Dough Systems Technical Session in Room 200-201, CC.*

**William F. Geddes Memorial Award**  
The recipient is kept secret until unveiled during the award ceremony.

### Recognize the Best—Submit an AACCI Award Nomination!

The AACCI Awards program recognizes the outstanding service, scientific innovations, and significant accomplishments of our members. We encourage you to familiarize yourself with the various AACCI Awards and nominate your colleagues deserving of this important recognition. Nominations are open and must be submitted on or before **January 31, 2017**. Visit [www.aaccnet.org/membership/awards](http://www.aaccnet.org/membership/awards) for full details and nomination form. A full list of award descriptions, previous award winners, and criteria are found online [aaccnet.org/membership/awards](http://aaccnet.org/membership/awards).

## 2015–2016 AACCI INTERNATIONAL BOARD OF DIRECTORS

Join the AACCI Board of Directors at an Open Member Forum Session on Tuesday at 4:00 p.m. in Room 103-104, CC, and in AACCI Central to learn about how AACCI is growing global outreach, achieving science and technology leadership, and building organizational engagement.



*President*  
Lydia Tooker Midness  
General Mills  
U.S.A.



*Chair of the Board*  
Gerard Downey  
TEAGASC  
Ireland



*President-Elect*  
Robert L. Cracknell  
Crackers Consulting  
Australia



*Treasurer*  
Dave L. Braun  
The Mennel Milling Co.  
U.S.A.



*Director*  
Christophe M.  
Courtin  
Belgium



*Director*  
Jon M. Faubion  
Kansas State  
University  
U.S.A.



*Director*  
Rolando A. Flores  
New Mexico State  
University  
U.S.A.



*Director*  
Samuel Millar  
Campden BRI  
United Kingdom



*Director*  
Deirdre E. Ortiz  
Kellogg Co.  
U.S.A.



*Director*  
Jennifer S. Robinson  
Bay State Milling  
Company  
U.S.A.

## MAKING A DIFFERENCE

Volunteering provides opportunities to gain skills and experience as well as the chance to give something back to the your scientific community. Thank you to the following dedicated volunteers!

### Administrative, Advisory, and Ad Hoc Committees

**2016 Annual Meeting Technical Program Planning: Program Team Chair:** Satya Jonnalagadda. **Program Team Vice Chair:** Lauren R. Brewer. **Program Team Leaders:** YiFang Chu, Crispin A. Howitt, Laura M. Nystroem, Simon Penson, Cristina M. Rosell, Katharina Scherf. **Program Team Members:** Derrick B. Amoako, Claudia Carter, Sean M. Finnie, Alecia M. Kiszonas, Maneka Malalgoda, Alessandra Marti, Supriya Varma. **Program Team Board Liaison:** Deirdre E. Ortiz

**China Strategies Task Force: Cochairs:** Robert L. Cracknell, Maureen Olewnik. **Members:** Jinsong Bao, Stephane Cochet, Robert G. Gilbert, Weining Huang, Hongxin Jiang, Yulai Jin, Ning Li, Keshun Liu, Qiao-Quan Liu

**Finance Committee: Chair:** Dave L. Braun. **Members:** Robert L. Cracknell, Lydia Tooker Midness, Samuel Millar, Jennifer S. Robinson

**Food Safety, Quality, & Regulatory Committee (FSQRC): Chair:** Barbara B. Heidolph. **Members:** Deann Akins-Lewenthal, Curtis E. Anderson, Tandace A. Bell, Bill Besson, Andreia Bianchini, Tom H. Black, Lakshmikantha Channaiah, Gina M. Clapper, Kia Compton, Kaydi Decker, Joel W. Dick, Janet K. Funke, Ellen B. Gay, Paul Harper, Gary Heiserman, Joe Horton, Charles R. Hurburgh, Jr., Laurie A. Hutton, Scott Jensen, Janice M. Levenhagen, Yan Li, Dirk E. Maier, Susan E. Martell, Brian McKim, Lindsey Mullenbach, Maureen C. Olewnik, Nicole M. Rees, Jennifer S. Robinson, Celetta Lee Sanders, Matthew Smith, Robert A. Sombke, Karina Spencer, Gretchen M. Stewart, Melonie Stoughton-Ens, Douglas Sturch, Nick Weigel, Lori A. Wilson, Rasma Zvaners

**Foundation Board: Chair:** Laura M. Hansen. **Members:** Sajid Alavi, Lauren R. Brewer, Jeff L. Casper, D'Anne M. Hayman, Huifen He, Alessandra Marti. **Ex-Officios:** Dave L. Braun, Sean M. Finnie

**Nominations: Chair:** Deborah E. Rogers. **Members:** Jayne E. Bock, Jan A. Delcour, Arnaud Dubat, Jon M. Faubion, Julie M. Jones, Perry K. W. Ng

**Professional Development Panel: Chair:** Sean M. Finnie. **Members:** Kristof Brijs, Mirko Bunzel, Constance Chiremba, Harold Corke, Juliano Luiz de Almeida, Tom O. Jondiko, Ting Liu, John M. Mathew, Ximena Quintero-Fuentes, Andrew S. Ross. **Ex-Officio:** Elizabeth Pletsch

**Scientific Advisory Panel: Chair:** Mirko Bunzel. **Members:** Arthur D. Bettge, Carola Buller, Sean M. Finnie, Weining Huang, Kati K. Katina, Simon Penson, Roberto L. Serrano, Maarten Van Oort. **Ex-Officios:** David H. Hahn, Satya Jonnalagadda

**Student Association: Chair:** Elizabeth Pletsch. **Vice Chair:** Ryan J. Kowalski. **Secretary-Treasurer:** Derrick B. Amoako. **Product Development Chair:** Sara Moayed. **Online Communicator:** Sandrayee Brahma. **Product Development Vice Chair:** Patricia Alejandra Cabas-Luhmann. **Student Representative, Ex-Officio Non-Voting:** Leigh Schmidt. **Ex-Officio:** Sean M. Finnie

### Award Juries

**The Cecil F. Pinney Travel Award and The Young Scientist Research Award Jury**  
**Chair:** Deirdre E. Ortiz. **Members:** Alecia M. Kiszonas, Devin J. Rose, Sergio O. Serna Saldivar, Catrin Tyl, Sandra M. Vaz, Jeanny E. Zimeri

**Excellence in Teaching Award Jury and The Fellows Award Jury**  
**Chair:** Martin G. Scanlon. **Members:** Ravindra N. Chibbar, Jonathan W. DeVries, Elizabeth A. Knight, Perry K. W. Ng, Deborah E. Rogers, Vijay Singh, John R. N. Taylor

**The Edith A. Christensen Award Jury, The Texture Technologies Quality Research Award Jury, and The Brabender Award Jury**  
**Chair:** Paul Wehling. **Members:** Anne R. Bridges, Robin K. Connelly, Stephen R. Delwiche, Janette A. Gelroth, Marc I. Johnson, Sathya Kalambur, Alessandra Marti, Elaine J. Sopiwnyk

**The Thomas Burr Osborne Medal Award Jury, The Alsborg-French Schoch Award Jury, and The Phil Williams Applied Research Award Jury**  
**Chair:** Jan A. Delcour. **Members:** James N. BeMiller, Geoffrey B. Fincher, Bruce R. Hamaker, Paul A. Seib, Peter R. Shewry, Jan Willem van der Kamp. **Ex-Officio:** Jennifer W. Gradnigo

### Publications Committees

**Book Acquisitions Committee Chair:** Rajen S. Mehta. **Members:** Dilek L. Austin, Girish Ganjyal, Rebecca A. Miller, Debra L. Patterson, Martin G. Scanlon, Katharina Scherf, Jasbir K. Singh, Kris E. Spence, Dilek Uzunalioglu, Delilah F. Wood

**Cereal Chemistry Editorial Board: Editor-in-Chief:** Les Copeland. **Senior Editors:** F. William Collins, Jon M. Faubion, Marta S. Izydorczyk. **Associate Editors:** Joseph M. Awika, Byung-Kee Baik, Ian L. Batey, Trust Beta, Arthur D. Bettge, M. Hikmet Boyacioglu, Ravindra N. Chibbar, Girish Ganjyal, Peter Koehler, Joe Panozzo, Martin G. Scanlon, Sergio O. Serna Saldivar, Senay Simsek, Michael J. Sissons

### Division Leadership

**Division Leadership Council: Chair:** David H. Hahn. **Members:** Rose Prabin Kingsly Ambrose, Jinsong Bao, Arthur D. Bettge, Anne M. Birkett, Robin K. Connelly, Hongxin Jiang, Katharina Scherf, Senay Simsek, Dilek Uzunalioglu

**Biotechnology Division: Chair:** Hongxin Jiang. **Vice Chair:** Edwin P. Smith. **Past Chair:** Ravindra N. Chibbar. **Secretary-Treasurer:** Pooba Ganeshan

**Carbohydrate Division: Chair:** Senay Simsek. **Chair-Elect:** Dilek Uzunalioglu. **Past Chair:** Baljit Singh Ghotra. **Secretary-Treasurer:** Amy Hui-Mei Lin. **Division Program Chair:** Harkanwal Sandhu

**Engineering & Processing Division: Chair:** Dilek Uzunalioglu. **Past Chair:** Supriya Varma. **Vice Chair:** Sandeep Bhatnagar. **Secretary-Treasurer:** Elena de la Pena

**Milling & Baking Division: Chair:** Arthur D. Bettge. **Chair-Elect:** Brian Walker. **Past Chair:** Jennifer S. Robinson. **Treasurer:** Nicole M. Rees. **Secretary:** Rebecca A. Miller. **Advisory Board:** Karen B. Foehse, Vikram Ghosh, Eric M. Lewis, Heidi C. Long, Kimberly E. Powell, Lori A. Wilson

**Nutrition Division: Chair:** Anne M. Birkett. **Vice Chair:** Elsayed M. Abdelaal. **Treasurer:** Liyi Yang. **Secretary:** Suzanne Mutz-Darwell. **Student Representative:** Yunus E. Tuncil

**Protein Division: Chair:** Katharina Scherf. **Vice Chair:** Bram Par-eyt. **Past Chair:** Monjur Hossen. **Secretary-Treasurer:** Jayne E. Bock

**Rheology Division: Cochairs:** Rose Prabin Kingsly Ambrose, Robin K. Connelly. **Chair-Elect:** Wu Ge. **Secretary-Treasurer:** Moses Khamis. **Division Award Chair:** Jon M. Faubion. **Division Program Chair:** Madhuvanti Kale

**Rice Division: Chair:** Jinsong Bao. **Past Chair:** John T. Manful

## Section Leadership

**Canadian Prairie Section: Chair:** Dale Taylor. **Past Chair:** Heather D. Maskus

**Cereals&Europe (C&E) Section: Chair:** Peter L. Weegels. **Secretary-Treasurer:** Maria Papageorgiou. **Student Representative:** Aboubakry Diallo. **Members:** Frederic Auger, Peter Koehler, Emilia Nordlund, Markus Schirmer. **Web Manager:** Abde Arrachid

**Cincinnati Section: Chair:** Curtis E. Anderson. **Vice Chair:** Karina Spencer. **Secretary-Treasurer:** Dave L. Braun

**Japan Section: Chair:** Katsuyuki Hayakawa. **Vice Chair:** Youichi Kurimoto. **Secretary:** Masaharu Seguchi. **Advisory Board Co-chairs:** Seiichi Nagao, Noritaka Tsuge. **Board Members:** Yuki Onuma, Yasuto Sasaki, Takano Shibuseta, Tetsuya Wasa, Yuji Yamada

**Manhattan Section: Chair:** Aaron L. Clanton. **Past Chair:** Theresa L. Sutton

**Northwest Section: Cochairs:** Lauren R. Brewer, Anthony J. Reuter. **Treasurer:** Jordan Walter

**Pacific Northwest Section: Chair:** Hayley Butler. **Vice Chair:** Claudia Carter. **Past Chair:** Catherine Butti. **Treasurer:** Craig F. Morris. **Secretary:** Andrew S. Ross

## Technical Committees

**Approved Methods Technical Leadership: Chair:** Anne R. Bridges. **Vice Chair:** Paul Wehling. **Members:** Andreia Bianchini, Connie E. Briggs, Larisa Lara Cato, Stuart A. Craig, Stephen R. Delwiche, Jonathan W. DeVries, Clyde Don, Arnaud Dubat, Diane L. Gannon, Gary Hou, J. Michael Hudson, Padmanaban G. Krishnan, Rebecca A. Miller, Simon Penson, Kathryn S. Phillips, David W. Plank, Andrew S. Ross, E. B. (Elizabeth) L. Russell, Katharina Scherf, Raymond D. Shillito, Michael J. Sissons, Elaine J. Sopiwnyk, Edmund J. Tanhehco, Michael Tilley, Ning Wang

**Asian Products: Cochairs:** Larisa Lara Cato, Gary Hou. **Members:** Esey G. Assefaw, Richard Y. Chen, Graham B. Crosbie, Bin X. Fu, David W. Hatcher, Craig F. Morris, Hideki Okusu, Andrew S. Ross, Linda M. Schlichting, Vicky A. Solah, Yibin Zhou

**Bioactive Compounds Methods: Cochairs:** Boris Nemzer, David W. Plank. **Members:** Elsayed M. Abdelaal, Nancy Ames, Rashida Ari, Joseph M. Awika, Trust Beta, Mirko Bunzel, Yumin Chen, F. William Collins, K. Gyebi Duodu, Bin X. Fu, Tamer H. Aamel, Lynn C. Haynes, Jodee Johnson, Talwinder S. Kahlon, Prabhakar Kasturi, Rui Hai Liu, Qin Liu, Susan Matthew, Victoria U. Ndolo, Perry K. W. Ng, Lisa Povolny, Vamshidhar Puppala, Iwona Rabalski, Sanaa Ragaee, Rachel R. Schendel, Roberto L. Serrano, Charles Staff, Supriya Varma, Liyi Yang

**Bread Baking Methods: Cochairs:** Connie E. Briggs, Rebecca A. Miller. **Members:** Margo S. Caley, Larisa Lara Cato, Mark E. Ingelin, Nicole M. Rees, Yvonne B. Supeene, Mingwei Wang

**Check Sample: Chair:** Kathryn S. Phillips. **Members:** Mark L. Bason, Tandace A. Bell, Andreia Bianchini, Frank A. Manthey, Twylla K. P. McKendry, Terry C. Nelsen, Terry A. Selleck, Raymond D. Shillito, John Szpylka, Ruth Toews, Jason Van Fossan. **Ex-Officios:** Anne R. Bridges, Paul Wehling

**Chemical Leavening Agents: Chair:** E. B. (Elizabeth) L. Russell. **Members:** Cindy G. Alosco, Diana Baker, Robert G. Berube, Sharon L. Book, N'Jere English, Siobhan Foley, Joyce Yue Liao, W. D. Alfred Lin, Nita Livvix, Trey Muller-Thym, Jesse Stinson, Supriya Varma

**Dietary Fiber and Other Carbohydrates: Cochairs:** Stuart A. Craig, Jonathan W. DeVries. **Members:** Mary Ellen Camire, Helen Cummins, Annette Evans, Qiang Liu, Robert L. Magaletta, Clodualdo C. Maningat, Barry V. McCleary, Rajen S. Mehta, William D. Park, Kathryn S. Phillips, Louise Slade, Kris E. Spence, Jan Willem van der Kamp

**Enhancements Review: Chair:** Paul Wehling. **Members:** Arthur D. Bettge, Stephen R. Delwiche, Janette A. Gelroth, Padmanaban G. Krishnan

**Experimental Milling: Cochairs:** Arnaud Dubat, Edmund J. Tanhehco. **Members:** Hiroshi Ando, Scott R. Baker, Jayne E. Bock, Richard Y. Chen, Diane L. Gannon, Chunjian Lin, Darrel S. Nelson, Nicole M. Rees, James E. Schuh, Thorne R. Seese

**Food Safety and Microbiology: Chair:** Andreia Bianchini. **Members:** Nancy Ames, Tom H. Black, Lakshmikantha Channaiah, Gina M. Clapper, Girish Ganjyal, Chunjian Lin, Dongmin Mu, Mary O'Meara, E. B. (Elizabeth) L. Russell, Terry A. Selleck, Joe R. Shebuski, Erdal Tuncan, Shyman Verma

**Methods for Grain and Flour Testing: Chair:** Simon Penson. **Members:** Clothilde Baker, Arthur D. Bettge, Clyde Don, Nancy M. Edwards, Janette A. Gelroth, Arun K. Lekhi, Wayne R. Moore, Terry C. Nelsen., Debbie C. Sobering, Elaine J. Sopiwnyk, Philip C. Williams

**Molecular Biomarkers for Grain: Chair:** Raymond D. Shillito. **Members:** Tandace A. Bell, Anne R. Bridges, Ravindra N. Chibbar, Gina M. Clapper, Tigst Demeke, Dick DePalma, Larry Freese, Michael Grosz, David Levin, Guomin Shan, Edwin P. Smith, Deepak K. Srivastava, Pamela L. Teran

**Oat and Barley Products: Chair:** Lindsey Mullenbach. **Members:** Elsayed M. Abdelaal, Nancy Ames, Jonathan W. DeVries, Ruedi Duss, Tamer H. A. Gamel, Kelly L. Henderson, Paivi M. Kanerva, Padmanaban G. Krishnan, Arun K. Lekhi, Barry V. McCleary, Clarence W. Newman, Tamara A. Reichkitzer, Francis H. Webster, Shyh-Jaung J. Yen

**Pasta Products Analysis: Chair:** Michael J. Sissons. **Members:** Paul B. Ebbinghaus, Clara Fares, Bin X. Fu, Ann Heider, Hamit Koksel, Frank A. Manthey, Hideki Okusu, Elaine J. Sopiwnyk, Nabeel Taher

**Physical Testing Methods: Cochairs:** Clyde Don, Elaine J. Sopiwnyk. **Members:** Scott R. Baker, Mark L. Bason, Jayne E. Bock, Paul Cliffe, Arnaud Dubat, Salvatore F. Iaquez, Mark E. Ingelin, Mario Jekle, Peter Koehler, Wayne R. Moore, Darren A. Robey, Deborah E. Rogers, Harry D. Sapirstein, Martin G. Scanlon, Katharina Scherf





**NEW**  
Emerging Science\*  
in **Prebiotic Health**  
Learn more at  
**Grain Exchange**

# OatWell® with proven health benefits

Oral Presentation  
in the Session;  
**Researching Health  
Benefits of Grain and  
Components:**  
Part 1:  
**MONDAY, October 24**  
1:30 – 3pm

You are invited to attend  
the presentation by *Robert E. Steinert:*  
**Effect of Consuming OatWell® on  
Glycemic Responses in Healthy Humans**

**Proven to  
lower cholesterol**

EU Journal of the European Union on 15 November 2011 (Commission Regulation (EU) NO 1160/2011).  
USFDA 21CFR 101.81. Soluble fiber from foods such as Oatwell, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease. Whitehead A, Beck EJ, Tosh S, Wolever TMS. Cholesterol-lowering effects of oat β-glucan: a meta-analysis of randomized controlled trials. Am J Clin Nutr. 2014;100(6):1413-1421.

**Healthy blood  
glucose levels**

EU Permitted health claims on oat beta-glucan in May 2012 (Commission Regulation (EU) No 432/2012).  
Review of human studies investigating the post-prandial blood-glucose lowering ability of oat and barley food products. Eur J Clin Nutr. 2013 Apr;67(4):310-7.

**Supports satiety**

USA structure function claim. This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease. Beck EJ et al 2009. Increases in peptide YY levels following oat beta-glucan ingestion are dose-dependent in overweight adults. Nutr Res. 2009 Oct;29(10):705-9.

**Digestive health**

EU Permitted health claims on oat beta-glucan in May 2012 (Commission Regulation (EU) No 432/2012).  
USA structure function claim. This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease. Mälikki, Y, and Virtanen, E; 2001. Gastrointestinal effects of oat bran and oat gum: A review, Lebensmittel-Wissenschaft und Technologie, Vol 34, N° 6.

**Prebiotics**

\* Carlson J, Raederstorff D, Steinert R, Slavín J. In vitro batch fermentation analysis of prebiotic effects of five common consumed fibers, Scientific Frontiers Posters at Probiotics Americas May 31-June 2, 2016, Chicago. <http://www.probiotaamericas.com/scientific-frontiers-posters-2016>.

OatWell® is a registered trademark of DSM



**DSM**  
BRIGHT SCIENCE. BRIGHTER LIVING.

HEALTH • NUTRITION • MATERIALS

DISCLAIMER: Although DSM has used diligent care to ensure that the information provided herein is accurate and up to date, DSM makes no representation or warranty of the accuracy, reliability, or completeness of the information. This brochure only contains scientific and technical information for business to business use. Country or region-specific information should also be considered when labelling or advertising to final consumers. This publication does not constitute or provide scientific or medical advice, diagnosis, or treatment and is distributed without warranty of any kind, either expressly or implied. In no event shall DSM be liable for any damages arising from the reader's reliance upon, or use of, these materials. The reader shall be solely responsible for any interpretation or use of the material contained herein. The content of this document is subject to change without further notice. Please contact your local DSM representative for more details. All trademarks listed in this brochure are either registered trademarks or trademarks of DSM group of companies in the Netherlands and/or other countries, unless explicitly otherwise stated.



## The Baking, Milling & Grain Industries' Best Friend

With over 20 years of service in the grain, milling and baking industry, Great Plains Analytical Laboratory has proven itself to be a trusted collaborator in helping our customers solve quality issues. As the leading cereal chemistry laboratory in the US, we continue to provide reliable and timely responses.

Great Plains offers a full range of services and complete quality analysis for special cereal chemistry and rheological testing as well as finished product and general food testing. Our high level of service and rapid turn-around time are well known.

Let us help guide you with your analytical, food safety and quality assurance needs. Contact us at 303.774.8262 or visit our website at [www.gpalab.com](http://www.gpalab.com).

---

Great Plains Analytical Laboratory (Formerly CII Labs)  
9503 N. Congress Avenue, Kansas City, Missouri 64153  
Lab: 816.891.7337 Fax: 816.891.7450  
Email: [gstewart@gpalab.com](mailto:gstewart@gpalab.com)

**ISO 17025**

Quality analyses and testing for the food industry in areas including:

- Nutritional Analysis
- Bake Testing and Rheological
- Microbiological
- Pesticide Residues
- HPLC Mycotoxins
- Minerals, Insect Frags, Water Testing



**Great Plains**  
Analytical Laboratory

INNOVATION DISTINGUISHES BETWEEN A LEADER AND A FOLLOWER.

—Steve Jobs



#### How are you going to navigate the ever-changing dietary landscape?

*Today's dietary demands are literally all over the board. While some consumers are demanding nutritious foods that are quick and easy to prepare, others desire protein-rich food that fits a low-carb or vegetarian lifestyle. Still others are simply looking for enough affordable food to feed a growing population. Yet, Wenger has been addressing challenges like these for decades. Wenger was the first, for example, to develop extrusion processes for high-protein foods, meat extenders and meat substitutes made from soy proteins. And we were the first to develop quick-cooking extruded and fortified rice, utilizing broken grain and lower-cost cereal blends to feed hungry nations. Now, we partner with food companies to develop the processes and products they require to meet world consumer's specific nutrition demands. Within our world-renowned Technical Center, we provide unmatched expertise for development challenges, whether it be for foods that are ready-to-eat, gluten-free, protein enhanced, heart healthy or have a low-glycemic index. And the list goes on.*

*Contact us now. With new concepts and fresh initiatives, we're ready to help you meet the ever-changing requirements of the food industry.*

Turning ideas into opportunities.  
PROGRESSIVE FOOD PROCESSING

*What will tomorrow bring*



wenger.com

BELGIUM TAIWAN BRASIL CHINA INDIA