

PRELIMINARY **SCIENTIFIC PROGRAM**

AACC International Annual Meeting

September 29 – October 2, 2013
Albuquerque, New Mexico U.S.A.



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Advancing grain science worldwide

www.aaccnet.org/meetings

The Top Science. The Top Scientists.

Welcome

AACCI members are passionate about their science and about the opportunity to share that science with one another. Nowhere are both science and networking more on display than at the AACCI annual meeting. As a past annual meeting attendee once said, “The value of networking in the scientific community can never be undervalued!” Indeed, much of the success of the meeting comes from your participation and involvement. The greater the number of us who attend, the greater the number of networking, sharing-of-ideas, and problem-solving opportunities we create. I look forward to seeing you in Albuquerque and to the spirit of discovery, camaraderie and community that I always experience when I have the opportunity to meet with my fellow cereal science colleagues.



Koushik Seetharaman

2013 Annual Meeting
Technical Program
Planning Committee Chair

AACC International is the foremost worldwide association for cereal grain science research. The 2013 annual meeting will showcase the latest advances and innovations, drawing more than 1,000 researchers and industry professionals to present, discuss, debate, and ultimately influence the future of cereal grain science.



Preliminary Scientific Program

Quality Programming, Excellent Networking — Year After Year.

- Symposia and technical sessions covering key developments in cereal grain research.
- Popular Science Cafés and Poster Talks offering opportunities for discussion and debate.
- More than 200 posters and poster-viewing sessions with authors present.
- An exhibition featuring the industry's top companies and their latest innovations.

Participate. Contribute. Connect.

Share your work with leading researchers from around the world. **Online submission of abstracts is open March 1–April 15, 2012.**

- Oral and poster submissions are reviewed for acceptance.
- An individual may be a presenter of only one oral and two poster submissions.

Visit <http://www.aaccnet.org/meetings/annual/CallforPapers> for more information, including guidelines, criteria for acceptance, a sample abstract, and more.



Premeeting Workshop

Near-Infrared Spectroscopy in Cereals Commerce, Processing, and Research

Organizer: Stephen Delwiche, USDA-ARS, Beltsville, MD, U.S.A.

Sponsor: Spectroscopic Methods AMC

Scientific Initiative: Quality & Analytical Methods

This workshop will cover some of the fundamentals of NIR spectroscopy and spectroscopic imaging. It will also deal with the implementation and maintenance of a network, the challenges to the instrument manufacturer, the use of this technology in process control, and its ability to be used as a diagnostic tool in plant breeding, food quality, and food safety research.



Symposia Listed alphabetically. Sessions are preliminary and subject to change.

Ancient and Alternative Grains: Nutritional and Functional Benefits for Product Development

Organizer: Dilek Austin, Novozymes North America, Franklinton, NC, U.S.A.

Sponsors: Carbohydrate Division, Nutrition Division, Flavor & Food Ingredients Division

Scientific Initiatives: Health & Nutrition, Ingredients & Innovations

Consumers are becoming more “carbohydrate selective” than “carbo-phobic” and still fall short of the recommended intake of whole grain foods. Ancient grains, including sorghum, amaranth, buckwheat, quinoa, Indian rice grass, spelt, millet, chia, and teff, are gaining the attention of consumers and the food industry. Many ancient grains offer nutritional and functional benefits as well as unique flavors. Several ancient grains are naturally gluten free, which is ideal for individuals with celiac disease or who are allergic to wheat. This symposium will provide an overview of some ancient grains, their nutritional, functional, and taste benefits, and their current and potential usages in product development by combining science, business, and health professionals’ perspectives.

- An overview of ancient grains of the world. S. PATIL, S. K. Patil & Associates, Munster, IN, U.S.A.
- Fiber and nutrient profiles of ancient grains and their effect on health. J. M. JONES, St. Catherine University, Arden Hills, MN, U.S.A.
- An obliging ancient grain: Sorghum. D. AUSTIN, Novozymes North America, Franklinton, NC, U.S.A.
- Einkorn: A potential candidate for developing high-lutein wheat. E. M. ABDEL-AAL, Agriculture and Agri-Food Canada, Guelph, ON, Canada
- Effect of amaranth and millet flours on physical properties of extruded breakfast cereals. C. BRENNAN, Lincoln University, Lincoln, New Zealand



Symposia

Antioxidants in Grains and Health: Is There a Linkage?

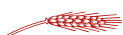
Organizers: El-Sayed Abdel-Aal, Agriculture and Agri-Food Canada, Guelph Food Research Centre, Guelph, ON, Canada; Satya Jonnalagadda, General Mills Inc., Golden Valley, MN, U.S.A.; Boris Nemzer, Future Ceuticals, Momence, IL, U.S.A.; Boxin Ou, Dover Sciences Inc., Franklin, MA, U.S.A.; YiFang Chu, PepsiCo Nutrition, Barrington, IL, U.S.A.

Sponsors: Bioactives Technical Committee, Nutrition Division

Scientific Initiatives: Health & Nutrition

Consumption of foods with adequate amounts of bioavailable antioxidants could alleviate oxidative damage to cellular components via their ability to fight reactive oxygen species and other free radicals. Antioxidant components are widespread in grains, but at present there is a big gap in information regarding efficacy of dietary antioxidants and their role in human health. Additionally, assays of antioxidant activity or capacity in grains and foods are diverse and complex, posing a massive challenge for academia, industry, and authority. This symposium provides an overview about the antioxidant issues in terms of their occurrence and analyses in grains and foods, impact of processing, and link to human health. The symposium will also present current research data and research gaps with emphasis on bioavailability and efficacy of grain antioxidants.

- An overview and chemistry of antioxidants in grains and impact of processing. F. W. COLLINS, Agriculture and Agri-Food Canada, Ottawa, ON, Canada
- In vitro assays of dietary antioxidants. D. HUANG, National University of Singapore, Singapore
- Bioavailability and metabolism of grain antioxidants. V. FOGLIANO, University of Naples Federico II, Portici Napoli, Italy
- Role of antioxidants in human health and nutrition. R. L. PRIOR, Arkansas Children's Nutrition Center, Little Rock, AR, U.S.A
- Food regulations regarding antioxidants and health. S. JONNALAGADDA, General Mills Inc., Golden Valley, MN, U.S.A.



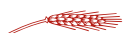
Symposia

Best Student Research Paper Competition

Organizer: AACCI Professional Development Panel, Pierre Faa, PDP Chair, Frito Lay, Inc., Plano, TX, U.S.A.

Scientific Initiative: Covers all initiatives

The objectives of this competition are to challenge students to demonstrate superior presentation skills, highlight the best research conducted and presented by students, and offer an opportunity for students to interact with the AACC International community at an early stage in their career. The competition is judged in two stages. During the first phase, university department heads nominate student members who submit an abstract and initial presentation. A jury reviews the many nominations and chooses six students to advance to the final round of competition. This session will showcase the top six finalists.



Symposia

Bioactive Components of Grains: Health Benefits, Effects of Processing, and Bioavailability

Organizers: K. Gyebi Duodu, University of Pretoria, South Africa; Trust Beta, University of Manitoba, Winnipeg, MB, Canada; Joseph Awika, Texas A&M University, College Station, TX, U.S.A.; Liyi Yang, Texas A&M University, College Station, TX, U.S.A.; Padmanaban Krishnan, South Dakota State University, Brookings, SD, U.S.A.

Sponsors: Bioactives Committee, Nutrition Division

Scientific Initiative: Health & Nutrition

A holistic look at the current state of knowledge with regard to the traditional non-nutrient phytochemicals (e.g., phenolics, etc.) in grains and their potential health benefits. Topics will deal with aspects such as fate during processing, bioavailability, and proposed mechanisms for potential health benefits.

(Continued next page)

- Overview of the effect of processing on non-nutritive phytochemicals in grains and implications for the health food market. K. G. DUODU, University of Pretoria, Pretoria, South Africa
- Whole grains in colon cancer prevention: Estrogen-like activity of minor polyphenols. L. YANG, Texas A&M University, College Station, TX, U.S.A.
- Chemical and cellular antioxidant properties of phenolic extracts from dietary fiber from selected whole grain cereals. T. BETA, University of Manitoba, Winnipeg, MB, Canada
- Phytochemical bioavailability and potential health effects of whole grains: Reductionist to holistic approach. A. FARDET, Clermont-Ferrand/Theix Research Center, INRA, St-Genes Champanelle, France
- Health-promoting dietary bioactives: A trans-disciplinary approach to efficacy and cellular mechanism. M. DEY, South Dakota State University, Brookings, SD, U.S.A.



Science Café

Cereal Food Processing: What Are the Benefits?

Organizers: Satya Jonnalagadda, General Mills, Inc., Golden Valley, MN, U.S.A.; Len Marquart, Grains for Health Foundation, University of Minnesota, Minneapolis, MN, U.S.A.; Laura Hansen, General Mills, Inc., Minneapolis, MN, U.S.A.

Scientific Initiatives: Chemistry & Interactions, Engineering & Processing, Food Safety & Regulatory, Health & Nutrition

This session will examine the technology of food processing, why it is important (e.g., food safety), and what the benefits are (e.g., improved nutrient bioavailability). Advancements in science across the supply chain—grain breeding, processing, health, and nutrition—will be examined. This session will also highlight the significant role of food processing to improve nutritional quality of cereal foods and their role in combating under- and over-nutrition. This topic fits strategically with AACCI action plan opportunity 2: Raising the profile of food processing.

- Benefits of food processing. R. FLORES, The Food Processing Center, University of Nebraska–Lincoln, Lincoln, NE, U.S.A.
- Cereal structure function: Impact on health outcomes. K. POUTANEN, VTT/University of Kuopio Food and Health Research Center, Espoo, Finland
- Processing to enhance ingredient functionality. J. CASPER, Cargill, Inc., Plymouth, MN, U.S.A.
- Structural and physiochemical properties of cereal grains: Interactions and effects on composition and properties. M. IZYDORCZYK, Canadian Grain Commission, Winnipeg, MB, Canada
- Food processing and sourcing considerations for cereal grain-based products. L. HANSEN, General Mills, Inc., Minneapolis, MN U.S.A.



Science Café

Conflict of Interest in Science: Myth or Reality?

Organizer: Satya Jonnalagadda, General Mills Inc., Golden Valley, MN, U.S.A.

Scientific Initiative: Health & Nutrition

This session will discuss how science can or cannot advance in this era of increased skepticism about industry, funding sources, and conflict of interest. Can we survive without each other? What is the future of cereal science with the limited federal funding? Public-private partnerships will become increasingly more important. Cereal science will need to address these issues and be prepared to find ways work more effectively with limited resources.

- Academic perspective. B. HAMAKER, Purdue University, West Lafayette, IN, U.S.A.
- Government perspective. J. MILNER, USDA-ARS, Beltsville, MD, U.S.A.
- Contract research organization perspective. T. RAINS, Biofortis, Clinical Research, Addison, IL, U.S.A.
- Industry perspective. S. JONNALAGADDA, General Mills Inc., Golden Valley, MN, U.S.A.



Symposia

Designing Safe Grain-Based Food Products

Organizer: Andreia Bianchini, Food Processing Center, University of Nebraska, Lincoln, NE, U.S.A.

Scientific Initiative: Food Safety & Regulatory

Product developers work hard to create new products that are flavorful, appealing, and meet consumers' expectations and demands; however, too often safety is an afterthought in the process. In this symposium speakers will address how food safety can be integrated into product design and development. The symposium will provide an overview of the steps involved in product development, how to source safe ingredients, how to address the safety issues of high-risk ingredients, and how processing plays a key role in assuring product safety.

- Overview of product development steps and how safety should be an integral part of it. D. MCINTYRE, Cargill, Inc., Plymouth, MN, U.S.A.
- Sourcing safe ingredients. D. AKINS-LEWENTHAL, ConAgra Mills Inc., Omaha, NE, U.S.A.
- How to address the safety issues of high-risk ingredients. J. MEYER, Covance Laboratories, Madison, WI, U.S.A.
- Processing and its key role in assuring safety. A. BIANCHINI, Food Processing Center, University of Nebraska, Lincoln, NE, U.S.A.
- Taking safety one step further: Accounting for consumer behavior. *Presenter to be announced.*



Symposia

Food Safety in the Global Supply Chain: Facts vs. Myths

Organizers: Liz Knight, McCormick, St. Louis Park, MN, U.S.A.; Andreia Bianchini, Food Processing Center, University of Nebraska, Lincoln, NE, U.S.A.

Sponsor: Food Safety and Microbiology Committee

Scientific Initiative: Food Safety & Regulatory

This symposium will address different issues associated with global trading, including economically motivated adulteration, mycotoxins, pathogens, genetically modified organisms, and allergens, and how some of these issues are truly a food safety concern, while others should be addressed more from a regulatory standpoint.

- Economically motivated adulteration in a global supply chain. K. EVERSTINE, National Center for Food Protection and Defense, University of Minnesota, St. Paul, MN, U.S.A.
- Regulatory limits and their role in the safety of a global supply chain. F. WU, University of Pittsburgh, Pittsburgh, PA, U.S.A.
- Are pathogens a concern in a grain-based supply chain? J. SHEBUSKI, Cargill, Inc., Wayzata, MN, U.S.A.
- GMOs: Are they a regulatory or food safety issue? *Presenter to be announced*
- Commingling of grains—A small fraction that makes the difference for allergens and gluten-free products. J. BAUMERT, University of Nebraska, Lincoln, NE, U.S.A.



Symposia

Grain Processing: Impacts of Grain Flows, Sustainability, and Grain Production Goals on Ingredient Costs and Food Aid

Organizers: Brian Anderson, Bunge, St. Louis, MO, U.S.A.; Nick Weigel, ADM, Overland Park, KS, U.S.A.

Scientific Initiative: Biotechnology & Sustainability

Impacts of world grain flows, sustainability, traceability, and grain production goals for 2030. The impacts of these factors on world feeding—specifically food aid.

- Sustainability from grains to ingredients. B. DIETRICH, Bunge, Bradley, IL, U.S.A.
- Global grain flows and cost implications. E. EBERT, Bunge, Bradley, IL, U.S.A.
- Grain production goals for 2030 and beyond. S. PETERSEN, Monsanto Company, Walford, IA, U.S.A.
- Evolving food aid—New formulations. Q. JOHNSON, Quican, Inc., Rockwood, ON, Canada
- Tracing the food aid supply chain. P. B. GREEN, International Trade Consultant, Washington, DC, U.S.A.



Science Café

Leveraging Innovation and Cost Management for Profitability

Organizers: Rajen Mehta, SunOpta Ingredients, Chelmsford, MA, U.S.A.; Brian Anderson, Bunge, St. Louis, MO, U.S.A.; Theresa Cogswell, BakerCogs Inc., Overland Park, KS, U.S.A.

Sponsors: Nutrition Division, Education Division

Scientific Initiative: Ingredients & Innovations

This will build on the well-received session during the 2012 AACCI annual meeting. There will be more discussion of techniques and real-life implementation of these approaches. Innovation, continuous improvement, productivity improvement, and cost management are key tools used by industry and academic institutions to improve profitability and deliver value-added products to both internal and external customers. This Science Café will focus on processes that companies use to innovatively reduce costs to improve profitability using these tools. We will discuss some of these continuous improvement tools, and then speakers drawn from diverse segments of the food industry will discuss ideas and share successes to achieve cost efficiencies and productivity improvement.

- Kaisan and other techniques to drive continuous improvement. L. MURRAY, Bunge North America, St. Louis, MO, U.S.A.
- Use of statistical processes to improve manufacturing processes. K. GARDNER, eMRI, Saline, MI, U.S.A.
- Practical cost management in commercial bakeries. T. COGSWELL, BakerCogs Inc., Overland Park, KS, U.S.A.
- Cost reduction processes in large commercial companies. *Presenter to be announced.*



Science Café

Milling & Baking Division Science Café: Whole Grains, from Evolution to Revolution

Organizers: Barbara Heidolph, ICL Performance Products LP, St. Louis, MO, U.S.A.; Sean Finnie, Cargill, Inc., Plymouth, MN, U.S.A.; Spencer Wise, Starbucks, Seattle, WA, U.S.A.; Nicole Rees, AB Mauri Food, Inc., Wilsonville, OR, U.S.A.

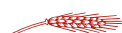
Sponsor: Milling & Baking Division

Scientific Initiatives: Health & Nutrition, Ingredients & Innovations, Quality & Analytical Methods

The objective of this Science Café session is to discuss current issues and trends in the milling and baking of whole grain products. The Science Café will contain brief presentations followed by an informal discussion of all the topics presented. The presentations will include information on market development and trends in whole grains, updates on labeling of claims and fortification, and discussions on the supply and production of whole grain flour, addressing if the current system is sustainable for the continued increase in consumption of whole grains. The presentations will conclude with a discussion on the challenges of developing whole grain products—in particular, on the need for approved milling and baking methods designed for whole grain utilization. The participation of the audience is vital for the success of this Science Café, so please come and speak your mind!

(Continued next page)

- Trends in whole grains and market development. C. HARRIMAN, The Whole Grains Council, Boston, MA, U.S.A.
- Regulatory update: Whole grains. C. L. SANDERS, American Bakers Association, Washington, DC, U.S.A.
- Supply and demand—Can we sustain the whole grain market? Grains, breeding, growing, processing: Wheat and ancient grains. W. DAY, Jr., ConAgra Mills, Hastings, MN, U.S.A.
- Supply and demand—Can we sustain the whole grain market? Milling operation redesign to deliver whole grains. F. CHURCHILL, Kansas State University, Manhattan, KS, U.S.A.
- Challenges for developing whole grain baked goods—Impact of flour shelf life on baking quality, performance, and sensory. E. ARNDT, ConAgra Foods Inc., Omaha, NE, U.S.A.
- Standard methods and method development for whole grain products. S. FINNIE, Cargill, Inc., Plymouth, MN, U.S.A.



Symposia

Overview of Health Risks Associated with Acrylamide and Mitigation Strategies in Carbohydrate-Rich Foods

Organizer: Dilek Austin, Novozymes North America, Franklinton, NC, U.S.A.

Sponsors: Carbohydrate Division, Nutrition Division

Scientific Initiatives: Health & Nutrition

The U.S. National Toxicology Program (NTP) report released on August 13, 2012, concludes that acrylamide causes cancer in several different tissues in both female and male laboratory mice and rats. The report states that the top contributors are the French fries from restaurants (30% of the acrylamide dietary exposure). Acrylamide is present in several carbohydrate-rich foods when cooked at high temperatures (>120°C) upon frying, baking, and roasting. Mean concentrations of acrylamide in major foods were found to range from 399 to 1,202 ppb for potato chips, 159 to 963 ppb for French fries, 169 to 518 ppb for cookies, 87 to 459 ppb for crisp bread and crackers, and 3 to 68 ppb for coffee (ready to drink). This symposium will provide an overview of the mechanism of acrylamide formation, its risks for consumer health, and some mitigation techniques.

- Toxicology and metabolic consequences of acrylamide in food. D. DOERGE, National Center for Toxicological Research/FDA, Jefferson, AR, U.S.A.
- Mechanisms of formation and adduct formation of acrylamide. P. KÖHLER, German Research Center for Food Chemistry, Leibniz Institute, Freising, Germany
- Improved breeding and variety evaluation methods to reduce acrylamide formation in potato products. G. C. YENCHO, North Carolina State University, Raleigh, NC, U.S.A.
- Applying enzymatic modifications to decrease acrylamide formation in foods. H. V. HENDRIKSEN, Novozymes, Bagsvaerd, Denmark



Symposia

Pulses as Complementary Ingredients in Cereal-Based Products

Organizers: Ning Wang, Canadian Grain Commission, Winnipeg, MB, Canada; Heather Maskus, Canadian International Grains Institute, Winnipeg, MB, Canada; Tanya Der, Pulse Canada, Winnipeg, MB, Canada

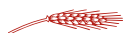
Sponsor: Pulse and Legume Technical Committee

Financial Sponsor: Best Cooking Pulses Inc.

Scientific Initiatives: Engineering & Processing, Health & Nutrition, Ingredients & Innovations

Pulses have a long history alongside cereal grains as traditional staple foods. As consumers demand increased fiber and protein in their foods, a resurgence in the complementary nature of pulses and cereals is evolving, especially as it relates to processed cereal-based products. This session will discuss the advantages of using pulse ingredients in the formulation of food products with respect to health and nutrition and will introduce how pulse processing technology influences the functional performance of the pulse ingredient. Attendees will learn how pulse ingredients can be successfully used to create healthy, high-quality cereal-based products.

- Opportunities to capitalize on pulse protein quality. J. HOUSE, University of Manitoba, Winnipeg, MB, Canada
- Partial germination of pulses to produce novel, healthy ingredients. S. BELLAIO, Buhler AG, Uzwil, Switzerland
- Understanding the impact of pulse flour properties on product quality. H. MASKUS, Canadian International Grains Institute, Winnipeg, MB, Canada
- Optimization of extruded snack products using pulse ingredients. S. HOOD-NEIFER, Saskatchewan Food Industry Development Centre, Saskatoon, SK, Canada
- Applications of pulses as gluten-free ingredients. C. PETERSON, SunOpta Ingredients Group, Edina, MN, U.S.A.



Symposia

Recent Advances in Starch Research

Organizer: Koushik Seetharaman, University of Guelph, Guelph, ON, Canada

Sponsor: Carbohydrate Division

Scientific Initiative: Chemistry & Interactions

This session focuses on new advances and a summary of current research on starch structure and function. The topics cover the range from techniques to study starch structure to the evolution of structure during development and to new understandings of relationships between starch structure, function, and chemical modifications.

- Synchrotron spectro-imaging of starch structure and properties. A. BULEON, INRA-BIA, Nantes, France
- Use of octenylsuccinic starch in emulsion applications. Y. C. SHI, Kansas State University, Manhattan, KS, U.S.A.
- Evolution of starch structure during wheat endosperm development. E. BERTOFT, Swedish University of Agricultural Sciences, Uppsala, Sweden
- Does amylopectin fine structure influence the organization of molecules in granular starch? V. VAMADEVAN, University of Guelph, Guelph, ON, Canada
- On the gelatinisation and gelation of aqueous starch suspensions: Molecular, nanomorphological, and mechanistic aspects. B. GODERIS, Netherlands

Role of Extrusion in Improving Nutritional Profiles of Cereal Foods

Organizers: Sathya Kalambur and Supriya Varma, Frito Lay, Plano, TX, U.S.A.

Scientific Initiatives: Engineering & Processing, Health & Nutrition

Thermal processing technologies like extrusion can help in improving bioavailability and efficacy of important bioactive compounds (e.g., antioxidants and β -glucans) in cereal foods. This technology can also influence levels of anti-nutritional factors or toxins in cereals. This process employs thermal and mechanical stresses of higher orders of magnitude to convert raw grain-based ingredients or by-products (e.g., broken rice kernels) into highly digestible and palatable foods or food analogs. Thus, it is important to understand the impact of this process on retention or reduction of various bioactive compounds and anti-nutritional factors or toxins in cereal foods. This symposium will present recent research in these areas and will attempt to provide insights into the changes happening to certain important bioactive compounds present in matrices of cereal foods undergoing extrusion.

- Effect of processing on selected nutraceuticals in quinoa, amaranth, and buckwheat. M. KARWE, Rutgers University, New Brunswick, NJ, U.S.A.
- Changes in dietary fiber during extrusion of rye and oat ingredients. K. POUTANEN, VTT/University of Kuopio Food and Health Research Center, Espoo, Finland
- The impact of extrusion on the content of polyphenols and antioxidant activity of rye grains. D. GUMUL, University of Agriculture in Krakow, Krakow, Poland
- Retention of antioxidants during extrusion cooking of cereal foods. S. ALAVI, Kansas State University, Manhattan, KS, U.S.A.
- Precooked analog products using low-shear extrusion—A novel nutrition delivery mechanism. B. PLATTNER, Wenger, Sabetha, KS, U.S.A.





Symposia

Technologies & Issues for Rice Quality Determination

Organizer: Delilah Wood, USDA-ARS WRRRC, Albany, CA, U.S.A.

Sponsor: Rice Division

Scientific Initiative: Quality & Analytical Methods

About half of the rice produced in the United States is exported, and Asia has become an important competitor for capturing the export market. In addition, the United States imports aromatic rice from Thailand, India, and Pakistan even though aromatic rice is also grown in the United States. These imports compete with the domestically grown rice. Recently, arsenic has been found in rice and rice products, which offers further competition to the rice market. All of these above mentioned factors plus the high cost of producing rice are major concerns to the U.S. rice industry. Thus, new, reliable methods are needed to characterize rice quality in terms of eating quality and acceptable levels of toxic substances such as arsenic.

- U.S. rice industry—Quality issues and potential solutions. S. LINSCOMBE, Louisiana State University, Rayne, LA, U.S.A.
- California rice—Capturing quality. K. MCKENZIE, Rice Experiment Station, California Coop Rice Research Foundation, Biggs, CA, U.S.A.
- Weighing arsenic and other risks with the nutritional benefits of rice. J. M. JONES, St. Catherine University, Arden Hills, MN, U.S.A.
- Chalkiness in rice—Can we beat it? M. FITZGERALD, University of Queensland, St. Lucia, Queensland, Australia
- Infrared heating for improved drying efficiency and food safety of rice. Z. PAN, USDA-ARS, Albany, CA, U.S.A.



Science Café

The New Generation of Professionals: Opportunities and Challenges in Transitioning from School to Work

Organizer: Rajen Mehta, SunOpta Ingredients, Chelmsford, MA, U.S.A.

Sponsors: Education Division, Nutrition Division

Scientific Initiative: Ingredients & Innovations

This will build on the well-received session during the 2012 AACCI annual meeting. As the food industry prepares for Generation Y and then Generation Z, the “net” generations, employers and educators will need to clearly communicate their wants and needs and learn how to exploit the strengths of these new generations that are very comfortable with the use of communications and the Internet—and all the resultant benefits and challenges. Similarly, today’s students as future professionals will have to adapt and leverage their unique skills to enhance their contributions in the traditional workplace. In this special session, we will have individuals with diverse viewpoints discuss their group’s needs, guidance, and ideas to allow a smooth and productive transition. The audience is encouraged to join in the discussion; please bring your questions and comments!



Symposia

Value-Added Processing of Oats and Barley

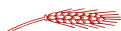
Organizers: Kelly Henderson, Viterra Food Processing, Portage la Prairie, MB, Canada; Marta Izydorczyk, Canadian Grain Commission, Winnipeg, MB, Canada

Sponsor: Oat and Barley Technical Committee

Scientific Initiatives: Engineering & Processing, Health & Nutrition, Ingredients & Innovations

Oat and barley products and ingredients are generally underutilized in North American diets. The health benefits of these cereals are well known, but less knowledge is available related to the processing of these cereals into new ingredients and products with unique functional and nutritional properties. This symposium will bring forward new advances in oat and barley product and process technology that are important to food product developers and beneficial to consumers.

- Oats—It's not just for breakfast anymore: New products from oats. P. WHALEN, Whalen Consulting & Oat Tech, Rapid City, SD, U.S.A.
- Fractionation of hull-less barley for the production of functional fiber ingredients. M. IZYDORCZYK, Canadian Grain Commission, Winnipeg, MB, Canada
- Oat and barley beta-glucan applications and concentration technologies. T. VASANTHAN, University of Alberta, Edmonton, AB, Canada
- Barley protein microparticles as nutraceutical delivery systems. L. CHEN, University of Alberta, Edmonton, AB, Canada
- Effect of processing on physicochemical properties and efficacy of oat and barley beta-glucan. N. AMES, Agriculture and Agri-Food Canada, Winnipeg, MB, Canada



Symposia

Wheat Improvement in the 21st Century

Organizer: Michael Tilley, USDA-ARS CGAHR, Manhattan, KS, U.S.A.

Sponsor: Biotechnology Division

Scientific Initiative: Biotechnology & Sustainability

Biotechnology has contributed to wheat improvement, including increased yield, insect and disease resistance, and grain quality enhancement. This symposium will focus on the current and future molecular-biological strategies to improve agronomic performance and diversify end uses of wheat grain. Topics will include advances in wheat genomics and the development and application of molecular markers for wheat improvement. This session will provide a broad overview of the applications of the tools of modern molecular biology, biochemistry, and genetics in wheat improvement programs.

- Wheat breeding: Past, present, and future. B. CARVER, Oklahoma State University, Stillwater, OK, U.S.A.
- Wheat genomics for grain quality improvement. R. HENRY, University of Queensland, St. Lucia, Queensland, Australia
- Heat and drought stress effects on end-use quality traits and their potential mitigation. R. PENA, CIMMYT Global Wheat Program, Texcoco, Mexico
- Increasing resistant starch in wheat using TILLING. B. HAZARD, University of California, Davis, CA, U.S.A.
- The changing wheat industry. E. SOUZA, Bayer CropScience LP, Lincoln, NE, U.S.A.

Welcome to Albuquerque

Home to Native Americans for thousands of years and visited by Spanish explorers in the 1500s, Albuquerque, New Mexico is rich in history and natural beauty. More than 100 art galleries and studios offering fine art, authentic Southwestern jewelry and pottery make Albuquerque a popular art destination. The largest city in New Mexico, Albuquerque offers a variety of activities, cultural attractions and distinctive sightseeing opportunities, including hot-air balloon flights over the scenic Rio Grande Valley, hiking among dormant volcanoes, golfing at one of 14 area courses, or visits to the National Hispanic Cultural Center, the Indian Pueblo Cultural Center or one of 19 museums.



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Registration Opens Mid-May

Visit <http://meeting.aaccnet.org> for more information, including a printable registration form and links to register online.

Hotel Information

Special discounted rates have been negotiated at several hotels around the Albuquerque Convention Center. More information will be available when registration opens. Visit <http://meeting.aaccnet.org> for more details.



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