

Food Processing and Packaging: Issues, Challenges, and the AACC International E&P Division

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Food processing involves conversion of raw materials or ingredients into consumer food products that are safer to eat, have favorable eating and storage qualities, and are convenient and affordable. Packaging keeps a processed food safer and delivers it to the consumer from manufacturing plants. Today's consumers have a strong voice in determining how they want their foods processed and delivered. People are more health-conscious than ever, and childhood obesity has become a major

issue. Families with children comprise an influential segment of the U.S. population, and they are looking for healthy and nutritious foods for their families. Sodium reduction, fat reduction or replacement, fiber and resistant starches, low-calorie foods, etc. are and will continue to be major food issues and will drive innovation in food processing. Extending product shelf life through the use of oxygen scavengers, micro-oxygen technologies, active packaging, modified atmosphere packaging, and packaging materials that meet these needs are some of the trends in food packaging.

With these demands come opportunities and challenges in food processing and packaging. AACC International is well positioned to help grain and grain-based food ingredients and processors provide the best products to consumers. AACC Intl. has a very active Engineering and Processing (E&P) Division that is committed to taking members and the organization to the forefront of emerging issues in engineering and processing. I am also happy to note that this issue of *Cereal Foods World* focuses on food processing and packaging. The E&P Division provides educational opportunities to enhance cereal science via engineering and

processing principles and avenues of communication between processors, researchers, and consumers. The E&P Division sponsored a symposium on Advances in Delivery of Food Nutrients—Tailoring Process Operations for Health and Wellness during the AACC Intl. Annual Meeting in 2009. It also had a very fruitful year in 2010, sponsoring a variety of activities that included a premeeting workshop on Green Technology and Carbon Footprint—Impact on Food and Feed Processing, an E&P Division lecture on Bubbles in Food and Processing Challenges, and an E&P Division-sponsored best engineering and processing student paper competition supporting student research.

We are poised to continue this trend in 2011 during the AACC Intl. Annual Meeting in Palm Springs, CA. The E&P Division is sponsoring two symposia on processing challenges for health-promoting foods. The first symposium addresses process challenges and potential solutions in the development and reformulation of grain-based health-promoting snack foods, with a focus on salt and fat reduction and fiber enhancement. The second symposium addresses challenges in creating, preserving, or enriching the bioactivity of cereal components via primary and secondary processing operations. Such processing operation(s) could be tailored to achieve specific applications for bioactive components and their bioavailability, leading to health-promoting foods. The E&P Division's Best Student Research Paper Competition will also be continued, providing students with a forum in which to participate. We encourage the involvement of AACC Intl. members in various E&P Division activities. The E&P Division secretary/treasurer election will be announced shortly. If you have knowledge and a passion for food and feed engineering and processing and the desire to contribute to E&P Division activities that will take it to the next level, please volunteer your time or nominate others for the office. See you all in Palm Springs!