At this year’s NC-213 Annual Meeting/Winter Technical Session, NC-213 members enjoyed sharing research that was presented during the technical sessions held February 4–5, 2010. Twenty-one presentations, showcasing research from the three objectives, were presented. In addition, the industry panel discussion members facilitated informative conversation on the afternoon of February 4. In addition to NC-213 events, participants had the opportunity to interact with each other during the banquet on Wednesday evening. The keynote address was delivered by Steve Lewis, Chief Science Officer, PETO, Sioux Falls, South Dakota.

A highlight of the meeting was the Andersons Award of Excellence. This year’s recipient is Dr. Lawrence A. Johnson, Iowa State University, Department of Food Science and Human Nutrition. Larry was selected for this award because of his significant contributions in research, outreach, and technology transfer, leadership, and professional service related to cereals and oilsides. Other qualities expressed by his peers included: his internationally recognized achievements in technology development for the use of corn and soybeans; the vision and leadership he provided with the Center for Crops Utilization Research; and the impressive contribution of scholarship to a variety of audiences. Peers also recognize that he collaborated with NC-213 researchers in past grant programs. These attributes, and how they relate to the objectives of the NC-213 program, contributed to this unanimous decision.

Feed Industry Hazard Analysis and Critical Control Point (HACCP) Auditor Training

The formation of a Feed Industry HACCP Taskforce in 2007 comprised of representatives from academia, industry, and the regulatory community developed a draft model standard for the voluntary adoption of HACCP by feed manufacturers. Currently, an estimated 50% of the U.S. feed tonnage is manufactured by firms that have either begun or fully adopted HACCP as a means to assure food safety. The draft model standard is part of a larger document titled Verification Program for a Voluntary HACCP Plan that provides clarification on how to apply HACCP principles when manufacturing feed. This represents the first such document in the global feed industry and can be applied to the multitude of HACCP schemes and certification systems developed by feed trade associations in the United States, Canada, and Europe. The program also provides the basis upon which competent authorities can provide third party audits “upon request” by firms that do not subscribe to commercial auditing services.

The training program that accompanies verification program was beta-tested during a Feed Industry HACCP and Auditor Training conducted November 9–13, 2009, in Austin, Texas, involving participants from the feed industry and feed control officials from California, Indiana, Kentucky, and Texas. A second training is slated for Sacramento, California, March 29–April 2. As an outcome of this training, participants will be equipped to audit HACCP plans against elements in the model standard to ensure that manufacturing practices conform to the company’s HACCP plan. The draft model standard represents a consensus by taskforce participants on how the feed industry should apply HACCP principles, validate a HACCP plan, and verify that it is being followed. The Association of American Feed Control Officials (AAFCO) taskforce members representing the regulatory community developed a checklist that accompanies the standard. A vote by AAFCO membership to adopt the voluntary model HACCP standard and checklist is expected to occur during the 2010 annual meeting in Portland, Oregon. More information about Feed Industry HACCP and the auditor training manual are available at feedhaccp.org.

Assistant or Associate Professor—Food Safety Microbiologist/Toxicologist—Molds and Mycotoxins

The University of Nebraska–Lincoln is seeking candidates for a 9-month, tenure-leading, research, teaching, and extension appointment in the Department of Food Science and Technology at the level of Assistant or Associate Professor. A Ph.D. in food science, microbiology, toxicology, or a closely related field is required. Strong commitments to research, teaching, and extension; excellent communication skills; ability and desire to work cooperatively on multi-disciplinary projects; and knowledge of molecular microbiology or toxicology, molds, fungi, and mycotoxins are required. Details of the position can be found at http://employment.unl.edu (requisition #100054).

To be considered for this position, go to http://employment.unl.edu, access requisition #100054, complete the Faculty/ Academic Administrative Information Form and attach a letter of application that includes a statement of your research interests and your curriculum vitae. Review of applications will begin April 5, 2010, and continue until the position is filled. Additionally, three letters of reference should be sent directly to Dr. Milford Hanna, University of Nebraska–Lincoln, 211 Chase Hall, Lincoln, NE 68583-0726. These letters must arrive no later than April 5, 2010. The University of Nebraska has an active National Science Foundation ADVANCE gender equity program, and is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers.

Calendared items of interest …

Upcoming deadlines and events

- Andersons Research Grant Program—Due Competition 2019 is projected to close on June 1, 2019, for a projected due date for proposals on September 1, 2018.

- For information on a request for our Executive Committee, the SAES 442 (Annual National Meeting) and OARDC Annual Meeting (due date: April 15, 2010) and the Missouri State University 30th Annual Meeting (due date: 30 days later (due date: March 5, 2010).

International events

- April 15–18, 2010, “11th Annual AOMA Corn and Soybean Expo.” Chicago, IL, USA. Tel: +1 (312) 782-8424, Fax: +1 (312) 782-0204, E-mail: info@parantezfair.com, Web: www.parantezfair.com


- April 26–May 2, 2010, “14th International Fair for Surface Coatings & finishing. Istanbul, Turkey.” Istanbul, Turkey. Tel: (212) 347 3164 (PBX), Fax: (212) 284 1001, E-mail: funda@aresfuarcilik.com, info@aresfuarcilik.com, Web: http://www.iufost2010.org


- July 17–21, 2010, “130th Institute of Food Technologists Annual Meeting & Expo.” Chicago, IL, USA. Contact: IFT, 221 N. LaSalle St., Suite 300, Chicago, IL 60601-1291, USA. Tel: +1 (312) 782-8424, Fax: +1 (312) 782-0204, E-mail: info@ift.org, Web: www.ift.org

- July 17–21, 2010, “AOCS Annual Meeting & Expo.” Phoenix Convention Center. Phoenix, AZ, USA. Contact: AOCS Meetings and Exhibits, 1110, Fax: +90 (212) 284 1001, E-mail: info@aresfuarcilik.com, Web: www.aresfuarcilik.com, info@aresfuarcilik.com, Web: http://www.iufost2010.org

- August 23–26, 2010, “5th International Food Machinery & Technology Exhibition & Conference.” CPA 2010 World Trade Center, Kocaeli Exponor. Istanbul, Turkey. Tel: (212) 347 3164 (PBX), Fax: (212) 284 1001, E-mail: info@aresfuarcilik.com, Web: www.aresfuarcilik.com

- August 23–26, 2010, “6th International Fair for Vegetable Protein and Other Soy Product.” College Station, TX, USA. Contact: bio-manipulation@eurofood.de, Tel: +49 (0) 30-298 995, E-mail: info@eurofood.de, Web: www.eurofood.de

The Grain Quality Newsletter is published and distributed at no charge to NC-213 (formerly NC-151) participants and supporters of research on “Marketing and Delivery of Quality Grains and BioProcess Cogredients.”

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Detection of Internal Insects in Wheat Using a Conductive Roller Mill and Estimation of Insect Fragments in the Resulting Flour

Authors: D. L. Brabec, T. C. Pearson, P. W. Flinn, D. Katzke
Submitted to: Journal of Stored Products Research

Insects reduce value of grain, cause loss of grain due to consumption by insects and extra cleaning required to remove insects and damaged kernels, and high levels of insects can indicate a general sanitation problem in the grain. However, small insects that bore into wheat kernels are extremely difficult to detect. A recently developed machine was tested for its ability to detect insects living inside wheat kernels and estimate insect pieces in flour after milling. The machine can inspect a one kilogram sample in less than a minute with very little sample preparation. Results showed high correlation with insect counts by x-ray and with insect fragment counts in resulting flour. The machine should find widespread usefulness where grain is inspected for quality and for determining long-term storability.

Contact Thomas Pearson, telephone 785-776-2729; e-mail: thomas.pearson@ars.usda.gov

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New Stored-Product Insect Resource Book by Dr. Bh. Subramanyam

Prof. Subramanyam “Subi” Bhadriraju and Dr. David W. Hagstrum, retired Research Scientist from the USDA-ARS GMPRC, published their most recent joint effort, Stored-Product Insect Resource provides the most multi-faceted, comprehensive guide to information on 1,663 insect species associated with stored products. This book covers 1,105 commodities and more than 9,200 different insect-commodity associations. A broad consideration of the species associated with stored products is important because many unfamiliar species are being encountered as a result of extensive international trade. Accurate species identification is essential for effective pest management.

Information on 468 species of natural enemies provides a fuller understanding of the potential for biological control of stored-product insects. Commodities that are likely to be infested are listed for each insect species and information on the suitability of some commodities as food is also reviewed. The volume includes a catalog that can help locate pictures and keys to identify stored-product insects. The authors each have more than 30 years of research experience and have taught stored-product entomology to undergraduate and graduate students as well as industry professionals around the world. This is their fourth book on stored-product insects and is available from AACC International (www.aaccnet.org).

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High-Speed Sorting of Grains by Color and Surface Texture

Author: T. C. Pearson
Submitted to: Applied Engineering in Agriculture

A low-cost, high-speed device was developed to inspect and separate a variety of grains based on color and surface texture. The device was tested on its ability to separate brown and yellow flax seeds, barley from durum, and red from white wheat. All accuracies were greater than 92% in one pass through the sorter, which is considerably higher than what can be accomplished with commercial color sorters. Throughput of the machine is approximately 25Kg/hr for wheat. The sorter uses a specially designed camera linked to a processor to accomplish high speed throughputs, accuracy, and low cost. The machine should find applications with seed breeders and suppliers to purify larger breeding lines. Several machines might also be run in parallel to keep up with some food processing lines.

Contact Thomas Pearson, telephone 785-776-2729; e-mail: thomas.pearson@ars.usda.gov

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GEAPS-KSU to Offer New Distance Education Courses

Funding has been approved for four new distance education courses in 2010. The courses, which have been approved by the Distance Education Program Oversight Committee of the Grain Elevator & Processing Society (GEAPS), will be offered between January 1 and July 4, 2010. The courses are:

• Quality Management Systems for Bulk Materials Handling Operations—Dr. Charlie Hurburgh, Iowa State University.
• Stored Grain Pest Management Practices and Fumigation—Dr. Subramanyam Bhadriraju, Kansas State University.
• Hiring and Retaining Good Workers in the Grain Industry—Barb Quandt, West Central Coop, Iowa.
• Equipment Maintenance in the Grain Industry—Gary Sondgeroth, PMI LLC, Iowa.

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