2015 International Grain Quality and Food Safety Conference

The conference will be held in Manhattan, Kansas, at the Hilton Garden Inn–Manhattan Conference Center, Monday, August 3 through Thursday, August 6, 2015, with sessions Monday through Wednesday, and an option for a tour on Thursday.

Conference topics include characterization of quality and safety attributes of cereals, oilseeds, and bioprocess coproducts; developing efficient operating and management systems; and quantifying and disseminating the impact of market chain technologies on providing high value, food-safe, and biosecure grains for global markets and bioprocess industries.

Online registration is open with information on costs and accommodation options at the website: grains.k-state.edu/igqsc-2015. The website has details on the agenda, invited speakers, important dates, how to submit abstracts, and sponsorship opportunities.

The Anderson’s Grant Research Program Continues a Long Standing Tradition with Current Request for Proposals—Proposal Submission Closed

NC-213 has been fortunate to host for many years The Andersons Research Grant Competition. This competition, supported by The Andersons endowment, has led to many fine discoveries and has leveraged additional funding from private industry, states, and the federal government; it is a hallmark of NC-213.

The current request for proposals was released in June and the Administrative Advisor’s Office received eight proposals in response to this funding opportunity. The results will soon be announced. Good luck to those teams who submitted proposals!

North Dakota State University’s Mihiri Mendis Garners Award

The AACI International Professional Development Panel hosted the 6th annual Best Student Research Paper Competition that was held at the 2014 AACCI Annual Meeting in Providence, Rhode Island, USA, October 5–8, 2014. The objectives of the competition were to challenge students to demonstrate superior presentation skills, encourage students to present their research work at AACCI, highlight the best research conducted and presented by students, and offer an opportunity for students to interact with the AACCI community at an early stage in their career. The competition was judged in two stages. The AACCI Best Student Research Paper Competition jury reviewed the nomination forms, abstracts, and initial presentations. Based on the judge’s scores, six students were chosen to participate in the competition taking place at the annual meeting. Mihiri Mendis from North Dakota State University was awarded the first place at this year’s competition. She presented part of her dissertation research carried out under the guidance of her adviser Dr. Senay Simsek. Her research title was “Arabinoxylan Hydrolyzates as Immunomodulators.”
Here are the latest research activities involving NC-213 scientists. This information is shared, by permission, from the USDA-ARS Center for Grain and Animal Health Research, Manhattan, Kansas.

**Efficacy of dichlorvos applied as an aerosol against Tribolium confusum adults and Tribolium castaneum pupae in a flour mill**

**Authors:** Bh. Subramanyam, D. R. Boina, F. H. Arthur

**Abstract:** The distribution, efficacy, and residual activity of dichlorvos applied as an aerosol to each of five floors of the Kansas State University pilot flour mill (9,968.8 m² total volume) were evaluated based on responses of adults of the confused flour beetle, *Tribolium confusum* (Jacquelin du Val), and pupae of the red flour beetle, *Tribolium castaneum* (Herbst), during and after application. Dichlorvos was applied at the highest labeled rate of 0.35 g/m³ on each floor. Concrete treatment arenas with or without different life stages of the two species were placed in open, obstructed, and concealed mill locations during aerosol application. The latter two locations included arenas placed underneath pieces of equipment and within equipment, respectively. These arenas were brought to the laboratory after 24 h in the mill and insects were immediately exposed on the arenas or on arenas aged for 24 h in a laboratory growth chamber at 28 ± 1 °C and 65 ± 5% r.h. Knockdown and mortality of *T. confusum* adults was 99–100% and mortality of *T. castaneum* pupae was 97–100% in open and obstructed mill locations, indicating uniform distribution of dichlorvos on each floor. In concealed locations, knockdown and mortality of *T. confusum* and *T. castaneum* was 85–94%, indicating effective dispersion of dichlorvos. Holding insects directly exposed to dichlorvos for an additional 24 h in the same arenas did not increase knockdown or mortality. Exposure to aged dichlorvos residues on concrete resulted in moderate to poor knockdown and/or mortality of *Tribolium* spp., suggesting loss of residual activity. Results show dichlorvos will give immediate kill of exposed insects but will not offer effective residual control.

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**Iowa State University Releases Mycotoxins Videos**

By Charles Hurburgh, Department of Ag and Biosystems Engineering; Alison Robertson, Department of Plant Pathology; and Erin Bowers, Department of Agricultural and Biosystems Engineering.

For a more in-depth discussion and overview of mycotoxins, the Grain Quality Initiative and the Crop Advisor Institute have prepared two video modules, Mycotoxins in Feed and Grain Industries.

Each program is about 30 minutes; one covers basic biology and development of mycotoxins and the second covers management and testing issues.

**Toxins I: “Mycotoxin Development”** can be viewed at: cai.iastate.edu/extension/mycotoxinsone/index.html

**Toxins II: “Best Practices in Handling and Testing”** can be viewed at: cai.iastate.edu/extension/mycotoxinstwo/index.html

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