

Grain Quality Newsletter

News and Highlights from NC-213: Marketing and Delivery of Quality Grains and BioProducts Coproducts.

Volume 37:2

NC-213: The U.S. Quality Grains Research Consortium

The Andersons Research Grant Program: Regular Competition Announced

A large measure of the success of the NC-151/NC-213 Committee over its 25 year existence is due to the research funds made available on a recurring basis by The Andersons Agricultural Research Fund and the annual Research Grant Program. This competition also aids in fostering collaboration between researchers, institutions and industry. Additionally, the goal of this Grant Program (both Regular and Team) is to develop new approaches and technologies to maintain or improve the quality of cereals and oilseeds from harvest to delivery, while preserving the environment, and maintaining consumer safety. These approaches and technologies must be developed and implemented if the U.S. is to remain at the forefront of the world's major producers. This program is focused on facilitating multidisciplinary, multistate, and multiagency collaborative research to address critical cereal and oilseed research issues.

With this competition, NC-213 follows other grant competitions by offering on-line submission of proposals. Along with this new approach, reviewers will be able to critique proposals on-line and researchers will be able to submit first year, second year, and supplemental reports on-line. Complete details can be found in the Request for Proposals (RFP).

For this competition, proposals will have the opportunity to receive up to \$25,000.00 per year for up to two years.

The Office of the NC-213 Administrative Advisor/Coordinator will soon release the R.F.P. and it will also be available on the NC-213 website.

The deadline is September 8, 2017-5:00PM Eastern Time.



Photo of Paul Brown, President and CEO of The Andersons, Inc.

The Andersons Research Grant Program:
Regular Competition

Request for Proposals

On-line Submission Deadline:
Friday, September 8, 2017

For names of the Andersons, Inc. Corporate Offices

© 2017 Marketing and Delivery of Quality Grains and BioProcess Coproducts

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 Coproducts."

Send your contributions, comments, suggestions, and subscription requests to:

Bill Koshar
Grain Quality Newsletter
The Ohio State University
OARDC
1680 Madison Avenue
Wooster, OH 44691-4096
e-mail: koshar.3@osu.edu

Save the Date! NC-213 Annual Meeting 2018 – February 21-22, 2018.

Sam McNeill, University of Kentucky, and NC-213 Chair, is working with the Wheat Quality Council setting up next year's Annual Meeting. We anticipate meeting along-side W.Q.C. and engaging in a shared banquet and having their group join us for our Poster Showing/Graduate Student Poster Competition People's Choice Award. Stay tuned for more information. The meeting will be held at the Embassy Suites, Kansas City International Airport.

Issued July 2017

Visit the NC-213 website at: nc213.org

World Grain News Release - By Dirk E. Maier May 22, 2017

During a recent trip to Argentina, Dr. Dirk E. Maier, Professor of Grain and Feed Operations and Processing at Iowa State University, and colleagues Sam Cook, Post-Harvest Engineer and Feed Technologist, and Jenny Macken, Academic Advisor in the Department of Agricultural and Biosystems Engineering, had the opportunity to meet with officers of APOSGRAN at the Bolsa de Cereales in Rosario, Argentina. The Iowa State University team was in Argentina to scope details for a planned faculty-led Study Abroad course scheduled for May 2018. APOSGRAN offered their support in hosting the ISU students while in Argentina. APOSGRAN subject matter experts will provide lectures on grain handling and operations, grain sampling and analysis, soybean and soy products processing, bio-diesel manufacturing and export, as well as topics on automation, logistics and pest control. Classroom sessions will be complemented with field visits to regional facilities including Terminal 6 which is the largest soybean handling, processing and export terminal in the world.

APOSGRAN is a non-profit technical association of grain industry professionals with members throughout Argentina engaged in grain operations management, grain and oilseeds processing, equipment manufacturing, service supply, technical sales, facilities planning and construction, professional consulting, and research and development. A key goal of the association is to promote best practices and technical solutions, and to provide state-of-the-art knowledge and continuing education for their members and the companies they represent.

While in Argentina, the ISU team was accompanied by Dr. Ricardo Bartosik, Senior Scientist and National Program Leader for INTA in the area of post-harvest engineering and technology. INTA is the national agricultural research service in Argentina and fulfills similar functions as USDA ARS. In addition to Rosario, the ISU team visited the INTA Balcarce agricultural experimental station which is located a 4-hour drive south of Buenos Aires. It is the home base of Dr. Bartosik and his research group. Field visits and lectures by subject matter experts in that region will focus on grain production and post-harvest handling including wheat, sunflower and corn; potato production and processing; as well as beef production. The ISU team had opportunity to see large scale crop and cattle production and processing during visits to a 14,000 Ha estancia and Latin America's largest potato processing plant. ISU students and faculty will also have opportunity to interact with students and faculty from the College of Agriculture of Mar del Plata National University.

The INTA and ISU teams also exchanged information on post-harvest engineering and feed technology research of mutual interest. Dr. Bartosik's team has been conducting world class research on the use of silo bags for the storage of cereal grains, oilseeds and pulses. They conduct leading research on large-scale hermetic storage technologies which is of interest to the ISU team. Dr. Maier and his research team work on smaller-scale hermetic storage technologies targeted at smallholder farmers in Sub-Saharan Africa. ISU's expertise and research in feed technology is of interest to INTA as Argentina's traditional pasture-fed beef production incorporates more and more finishing beef in feed lots. The utilization of corn and co-products from the bio-ethanol, bio-diesel and soybean and sunflower processing industries are gaining in importance.

The complete schedule for the planned faculty-led Study Abroad course to Argentina in May 2018 will be available with the start of the fall semester in August 2017. The course will be promoted among Iowa State University students and is aimed to attract interest among students in the Department of Agricultural and Biosystems Engineering, as well as students in the College of Agriculture and Life Sciences and College of Engineering. Any individuals or companies that wish to sponsor this trip in order to help defray costs for the students can contact Dr. Maier at dmaier@iastate.edu or (515) 294-0140.



Dr. Maier (4th from right) and Sam Cook (2nd from left) with APOSGRAN officers and directors including Sr. Hugo R.

Garcia De La Vaga (far right), President of APOSGRAN who hosted the Iowa State University delegation in Rosario, and Dr. Ricardo Bartosik (3rd from right) who accompanied the ISU delegation during their time in Argentina. Also shown (from left to right) are Roberto Hajnal, Guillermo Romero, Juan Carlos, Ruben Buffarini, and Sebastian Gambaudo.

IOWA STATE UNIVERSITY
Extension and Outreach

FOR IMMEDIATE RELEASE

Contacts:

Charles Hurburgh
Professor-in-Charge
Iowa Grain Quality Initiative
(515) 294-8629
tatry@iastate.edu

Brent Pringnitz
Coordinator, ANR Program Services
Iowa State University Extension and Outreach
515-294-6429
bpring@iastate.edu

Preventive Controls for Animal Food Safety Training Course for FSMA Compliance

Register for the three day course by Aug. 1

AMES, Iowa – The [Iowa Grain Quality Initiative](#) is now accepting registrations to become certified as a Preventive Controls Qualified Individual for the Food Safety Modernization Act. This three day course will be held Aug. 9-11 at the Scheman Building, Iowa State University campus, Ames, Iowa. The course is targeted to individuals responsible for animal feed and feed ingredient safety at milling and processing facilities.

This course is the standardized training developed by the Food Safety Preventive Controls Alliance. The United States Food and Drug Administration accepts it as meeting the requirements of PCQI designation. The course will provide knowledge of the FSMA animal preventive controls rule and training for creation of an effective animal food safety plan.

The Food Safety Preventive Controls Alliance will give a certificate of completion and will acknowledge the individual as compliant with the FDA requirements. This course is offered in collaboration with the [American Feed Industry Association](#).

Registration check-in opens at 8 a.m. with the program starting at 8:30 a.m. Aug. 9; the course adjourns Aug. 11 at noon. [Pre-registration](#) is required and must be completed before midnight, Aug. 1. Registration is \$650 and includes course materials, breaks and lunches listed on the program. Space is limited for this course.

Additional course information and online registration is available at <http://www.aep.iastate.edu/animalfood/>.

For more information about the Iowa Grain Quality Initiative, visit <http://www.iowagrains.org>.

Title: Support for Food and Feed Industry Response to the Food Safety Modernization Act

Relevance

Concerns over human and animal food safety led to the passage in 2011 of the Food Safety Modernization Act, with final rules and enforcement beginning in 2016. All companies processing food or feed in any way are now required to create a Food Safety Plan, based on a risk analysis for the firm's individual situation. The plan and related controls will prevent known hazards from reaching product users. Both internal operations and transportation/distribution are covered. Farms and firms that only store and handle product are exempt, but the real role of FSMA is to establish a legal liability chain for food/feed safety. This role is gradually including everyone in the food safety chain, through market-established requirements. FSMA has brought a new operations culture to agriculture as well as new regulatory requirements. Literally thousands of Iowa firms are faced with compliance on either the human or animal side (or both).

Response

FSMA compliance is divided into human food and animal food requirements. There are generic concepts that apply to both, as well as specific adaptations for each. FDA created 2-3 day training courses for each set of requirements, with the expectation that at least one person in each covered facility would take the course(s) to receive a Preventive Controls Qualified Individual Certificate, and thus to be the creator of the Food Safety Plan for that facility. Likewise operations not directly covered or that had no previous experience with formalized food safety management systems needed a starting point for preparation, even before naming a PCQI. This was clearly a need well suited to Extension programming.

Department of Food Science, and the Iowa Grain Quality Initiative, Agricultural Engineering Department took the lead for human and animal food FSMA, respectively. Readiness checklists were made available through Food Science and IGQI websites. Four staff – Dr. Angela Shaw, Dr. James Dickson, Dr. Joseph Cordray, and Connie Hardy became Lead Instructors for the human food course. They were supported by industry experts who are Lead Instructors, Dan Utte of UQ Strategies and Ross Jaabay retired Burke employee. Dr. Dickson was on the editorial committee that developed the human food course materials. Three staff – Dr. Charles Hurburgh, Dr. Jim Dickson and Dr. Erin Bowers have become Lead Instructors for the animal food course. Dr. Hurburgh was on the editorial committee that developed the animal food course materials. The human food PCQI course is now included in one Food Science and one Animal Science campus course, providing the certificate to undergraduate and graduate students at the end of a semester. The animal food PCQI will be included in a Technology Systems Management campus course in Spring 2018.

Outcomes

The readiness checklists have been downloaded over 2700 times since posting. The PCQI classes were released by FDA in January and June 2016, for human and animal food, respectively.

Iowa State Human Food Lead Instructors have offered the human food PCQI class 8 times to a total of 212 participants. One of these was for a single grain processing company, who sent their Q/C staff from all 3 of their plants to Iowa for this training. In addition, Iowa State University faculty serve on the FDA's Technical Assistance Network (TAN), which provides online support for specific technical questions from the industry.

Iowa State Animal Food Lead Instructors have offered the animal food PCQI class 8 times to a total of 297 participants. ISU partnered with industry groups in the animal foods offerings: American Feed Industry Association (3), Renewable Fuels Association (3) and Land O Lakes (2).

Many course participants asked if Iowa State will provide assistance to companies in the creation of food safety plans and the accompanying upgrade of operating procedures. To expand the capacity of on-campus faculty, a new staff person has been jointly hired by the Iowa Grain Quality Initiative (College of Agriculture and Life Sciences) and the Center for Industrial Research and Services (Office of Economic Development and Industry Relations – College of Engineering). A July 2017 start date is anticipated.

Impact:

The 509 participants represented about 150 different corporate organizations, and produced processed foods, food ingredients, mixed feed, feed ingredients pet food and other products serving the human and animal food industries. Regulatory officials from 7 states also attended the classes. These facilities now have the first step of FSMA compliance completed. Compliance inspections are set to begin in 2018.

When asked on a 5 point scale about the applicability of the class to their operations, the average response was 4.5/5.0. We estimate that collectively the industry organizations have about \$7.5 billion in annual sales.

Submitted by - Contact:

Dr. Charles R. Hurburgh
Professor, Agricultural and Biosystems Engineering
Professor in Charge, Iowa Grain Quality Initiative
3167 NSRIC, 1029 N. University Blvd.
Iowa State University, Ames, Iowa 50011
515-294-8629
tatry@iastate.edu