

# Grain Quality Newsletter

News and Highlights from NC-213: Marketing and Delivery of Quality Cereals and Oilseeds

Volume 21:2

Visit the NC-213 web site at: <http://www.oardc.ohio-state.edu/nc213>



## A Big Meeting in Big Sky



The NC-213 Summer Workshop was held in August, at Big Sky Resort in Montana. The purpose of the NC-213 Summer Workshop was to give members the opportunity to interact directly with private industry to gain insight into current issues and problems. The topic for this year's Workshop was Certifiable Quality Management Systems for the U.S. Grain Handling Industry.

While the setting was spectacular, the presentations given by industry representatives commanded just as much attention.

David Shipman, Deputy Administrator, GIPSA, kicked-off the Summer Workshop with his talk on "The Need for Identity Preservation and Product Segregation in the U.S. Grain Industry" given at the opening night's Banquet. Thursday's morning session brought representatives from Cargill Foods, Frito Lay, Consolidated Grain & Barge, General Mills, and Indiana Crop Improvement Association. All presentations offered current and useful information for the group. The morning was divided into two sessions. Each session ended with a panel discussion which included all presenters. This was a tremendous opportunity for NC-213 members to gain information in an open-forum setting. The afternoon session included representatives from Farmers Co-op and a Consultant for Farmland Industries. This session was followed by a panel discussion and by two breakout sessions; one led by Tim Herrman (Kansas State) and one led by Dirk Maier (Purdue).

Friday offered the group an opportunity to experience the Montana State University Bioscience Center. Florence Dunkel (Montana State) orchestrated an outstanding schedule of events. The first presentation was given by Debra Habernicht, lab manager, at the Montana Cereal Quality Laboratory. Here, the group learned of the work being done with the Asian noodle market. In addition, this presentation included a noodle texture and color analysis demonstration. The group then moved on to hear Dr. Charles Rust, professor emeritus Department of Agricultural Economic, and Debra Habernicht describe how they interacted with industry locally, nationally, and in foreign grain markets of Taiwan, Paris, and London. This was one of a trilogy of capstone courses organized under a broad agriculture umbrella termed "Conception to Consumption." Dr. David Sands, a Professor of Plant Pathology at Montana State University, appropriately finished the program with a talk entitled "Food for Thought"--take home ideas for our members.

The group's next stop was Three Forks, Montana. Here, the group visited the Wheat Montana Bakery. This is a family farm to finish organic operation. What a great experience this was. The group was welcomed by CEO Dean Folkvord.

Mr. Folkvord started the visit off by showing a background video on Wheat Montana Bakery. The bakery was toured, as were the packaging and storage areas. In addition to producing and selling their own brand-name bread and high-protein grain to 110 specialty breadmakers around the country, Wheat Montana boasts food storage modules, baker's kits, gifts, wheat coffee, wheat chili mix, and cookbooks. This stop was topped off by a lunch that included their very own bread!



NC-213 Members examine Chinese noodles.

## Guinness Book of World Records...

*From Field to Table in 8+ Minutes: a team of 10 bakers from Wheat Montana Farms & Bakery, Three Forks, Montana, took just eight minutes, 13 seconds to turn standing wheat into loaves of bread. The feat, sanctioned by the Guinness Book of World Records, reclaimed the world title from the British in September.*



Wheat Montana CEO Dean Folkvord talks about value-added wheat products.

## Calendar items of interest ...

### Upcoming events-

- **Annual Progress Reports** for 2001 are due December 14--this year our goal is to place the Annual Progress Report on the web site prior to the Winter Technical Session.
- **The NC-213 Annual Meeting** - Winter Technical Session is scheduled for February 20 - 22, 2002, to be held in Kansas City, Missouri at The Embassy Suites KCI Airport.

This year the NC-213 Banquet will be combined with the Wheat Quality Council's Banquet.



Please visit the web site for current information or contact the Coordinator's office.

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 Cereals and Oilseeds."

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



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## Certifiable Quality Management Systems for the U.S. Grain Handling Industry Summary of the NC-213 Summer 2001 Workshop

Dirk E. Maier<sup>1</sup> and Tim Herrman<sup>2</sup>, Moderators

<sup>1</sup>Agricultural & Biological Engineering Department, Purdue University  
<sup>2</sup>Grain Science and Industry Department, Kansas State University

The unexpected controversy over biotechnology-based crops is forcing the U.S. grain production, marketing and processing system to examine how it would handle (segregate; channel) large amounts of specialty (non-commodity; identity preserved; value-added) products. Market analysts have been predicting...

To view this Summary in its entirety, please visit the NC-213 web site at <http://www.oardc.ohio-state.edu/nc213>.

# Program Agenda for the Upcoming NC-213 Annual Meeting.

## NC-213 Annual Meeting - February 20, 21, 22, 2002 - The Embassy Suites - Kansas City International Airport



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Wednesday, February 20, 2002

5:00 PM – 7:00 PM Manager's Reception (Hosted by The Embassy Suites)

Take this opportunity to meet participants from Wheat Quality Council and catch up on the latest news with fellow NC-213 members.

5:00 PM – 7:00 PM Registration – A separate registration table will be available to NC-213 participants. This table will be located at the assigned dining room.

7:00 PM – 9:00 PM Sit-Down Dinner – Wheat Quality Council and NC-213 - Presentation of Anderson Research Award - Keynote Address. Wheat Quality Council will provide the Keynote Address.

Thursday, February 21, 2002

7:00 AM Made-to-Order Breakfast (Hosted by Embassy Suites)

8:30 AM Greeting -Chair NC-213 and Comments - NC-213 Coordinator

### Presentations by Recipients of 1999 Anderson Research Grant Program

- Carl Bern "Quality Changes of Specialty Corn Varieties During Long-Term, Low-Moisture Storage."
  - Lloyd Bullerman "Use of Extrusion Processing to Reduce Fusarium Mycotoxins in Cereal Grains."
  - Floyd Dowell "Development of a Single-Kernel NIR System to Detect Insect Infestation in Wheat."
  - Tim Herrman "The Impact of Storage on Wheat Milling Performance."
  - Dirk Maier "Carbon Dioxide Monitoring for Early Detection of Grain Spoilage."
- Open forum – question and answer period.



### Presentations by Recipients of 2000 Anderson Research Grant Program – Team Competition

- Tim Herrman and Dirk Maier "Grain Facility System Analysis to Improve Adoption of Value-Enhanced Grain Handling and Marketing in the U.S."

### Objective C Quantify and Define Quality of Cereals and Oilseeds for Various End-Use Markets

- Quality and Traceability Certification of a Grain Handling Company. C. Hurburgh, Department of Agricultural & Biosystems Engineering, Iowa State University.
- Comparative Performance of Whole-Grain, Near-Infrared Analyzers. C. Hurburgh, Department of Agricultural & Biosystems Engineering, Iowa State University.
- Performance of On-the-Go Near-Infrared Analysis Systems for Corn and Soybeans. C. Hurburgh, Department of Agricultural & Biosystems Engineering, Iowa State University.
- Extracting Grain Quality Research Resources from the Internet: Using Metadata as a Filter. D. Schenck-Hamlin, Director, ISSA, Kansas State University.

### Objective D Determine the Economic Impact of Improving the Quality of Cereals and Oilseeds

- Implications of Starlink Corn for Regulation of GM Crops. M. Salazar, L. Busch, Department of Sociology, Michigan State University.
- Developing an Electronic Information and Certification System for Value Added Soybeans. K. Bender, Department of Agriculture and Consumer Economics, University of Illinois.
- Marketing Practices of Illinois Firms Handling Value Added Crops. K. Bender, Department of Agriculture and Consumer Economics, University of Illinois.
- A Decision Support System For Mid-Atlantic Wheat Producers to Locate Value in the Supply Chain. E. Jones, Department of Agricultural and Applied Economics, Virginia Tech.
- Management Response to Technological Innovation in the U.S. Grain Industry. E. Jones, Department of Agricultural and Applied Economics, Virginia Tech.

### Objective A Determine the Effects of Genetic Traits, Abiotic Environmental Conditions, and Handling Practices on the Quality of Cereals and Oilseeds

- Mixing Seed of Two Hard White Wheats to Optimize Quality and Milling. K. Lee, T. Herrman, J. Shroyer, Grain Science and Industry, Kansas State University.
- Pollination Effects on Grain Quality of Maize Hybrids Evaluated in Variety Performance Tests. R. Pratt, P. Thomison, Horticulture & Crop Science, The Ohio State University.
- Evaluation of Intraspecific Competition (*Aspergillus flavus* Link) and Aflatoxin in Vitro and in Pre-Harvest Corn. D. Wicklow, NCAUR, ARS, USDA, Peoria, IL.
- Current Hard Winter Wheat Quality Laboratory Activities. O. Chung, GMPRC, Manhattan KS.

### Objective B Assess the Effects of Microbial Growth, Insect Infestation, and Handling on Quality of Cereals and Oilseeds

- Mycotoxins in Malting Barley. C. Wolf-Hall, Department of Cereal Science, North Dakota State University.
- Simulating Grain Respiration under Non-Aerated Conditions. C. Reed, Department of Grain Science, Kansas State University.
- Use of *Bacillus pumilus* as a Potential Biological Control Agent of Mold Growth and Mycotoxin Production in Stored Grain. J. Stiles, L. Bullerman, Department of Food Science and Technology, University of Nebraska-Lincoln.
- Identity Preserved or Contaminated? Elevator Equipment and Handling Data. M. Elena Ingles, M. Casada, R. Maghirang, Kansas State University.
- Open Forum – question and answer period. Program overview.



Friday, February 22, 2002

- Business Meeting

*Please note that the Program Agenda is subject to change. For the most current Program, please visit our web site at: <http://www.oardc.ohio-state.edu/nc213>.*

