

Grain Quality Newsletter

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

Volume 20:3

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



Calendar items of interest ...

Upcoming events-

- **The NC-213 Annual Meeting** - Winter Technical Meeting is scheduled for February 21 - 23, 2001, to be held in Kansas City, Missouri at The Embassy Suites KCI Airport.
- **Annual Progress Reports** for 2000 are due now--Please submit to Dr. Ravlin's office. To submit your Annual Progress Report, you may attach it to an e-mail or send your Progress Report on a diskette or submit on-line like last year.
- **The NC-213 Summer Meeting** - Summer Technical Meeting will be scheduled during the Business Meeting portion of the Winter Technical Meeting.

Previous events-

- **The Anderson Research Grant Program - "Team Competition"** provides research funding within the scope of the multistate research project NC-213 - "Marketing and Delivery of Quality Cereals and Oilseeds".

Four proposals were submitted for this Research Grant Program.

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."

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USDA Releases Results of IFAFS Proposals

In May NC-213 Scientists were involved with the development of a proposal entitled "Capacity Building in the United States Value-Enhanced Cereal and Oilseed Systems." This proposal was submitted to the USDA, IFAFS competitive grants competition. The proposal was one of more than 970 applications submitted.

As a result of the efforts that went into this proposal, the review panel summary voiced these comments:

- "This proposal is very relevant to the IFAFS Program, written on a subject that has significant implications to the industries involved, including the consumers. Cereals and oilseeds comprise a significant share of U.S. agricultural output."

- "This project is very well conceptualized, written and organized. Its objectives and methods are appropriately connected, with a high probability of producing many very useful and effective products. These educational products should result in more efficient markets and marketing systems. The team of scientists assembled from several major land grant universities, including an 1890 land grant university, is highly capable of implementing the project successfully."

This effort is also integrated across the areas of research, education and extension in a logical manner."

Unfortunately, the USDA was only able to fund a small percentage of the projects submitted (8.7% of all grants submitted) and the NC-213 proposal was not one of those.

Below is a list of awards granted by the USDA/CSREES IFAFS that are related to cereals and oilseeds and may be of interest to you.

--Comparative Genomics of Domestication Traits in Lettuce and Sunflower - University of California, Davis

--Reducing the Genetic Vulnerability of Cotton - University of Georgia

--Functional Genomics of WRKY Gene Family from Rice - University of Idaho

--Gramene: A Resource for Comparative Grass

Genomics - Cold Springs Harbor Laboratory, New York

--Management Strategies to Prevent Gene Flow from Transgenic Wheat - A Model System - University of Idaho

--Measures of Consumer Acceptance of and Willingness to Pay for GM Foods in the U.S. and the E.U. - Mississippi State University

--High-Selenium Meat, Wheat, and Broccoli: A Marketable Asset? Northern Plains Area/USDA/ARS, Colorado

--Use of Enzymes to Reduce Step Time, Reduce SO2 Emissions and Improve Product Yield in the Corn Wet-Milling Process - North Atlantic Area/USDA/ARS, Pennsylvania

--Development of Castor with Reduced Toxicity and Expanded Markets - Texas Tech University

--Corn Products Designed for Environmentally Friendly Swine Nutrition - North Carolina State University

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NC-213 Bids Farewell to A Friend

Mr. Gene Shove, one of the original organizers of NC-151 (the forerunner of NC-213). Gene passed-away Monday, October 9, at Carle Foundation Hospital, Urbana, Illinois.

Mr. Shove's diverse background included working with Lowell Hill in sampling and monitoring changes in quality in ocean vessels from the U.S. to Japan, making contributions to the area of low temperature drying and the improvement of quality through drying strategies, and refrigerated grain storage research in the 1960's and 1970's.

During his career, Mr. Shove was involved in numerous associations and was recognized by his peers with many awards, ranging from the Paul A. Funk Recognition Award to the UI College of Agriculture in 1980, to the Silver Switch Award from the National FEC.

Gene Shove earned his Bachelor's and Master's Degrees from Kansas State University and his Doctoral degree from Iowa State University. He joined the University of Illinois in 1958 and remained there for 31 years.

Stanley A. Watson, Ph.D., Retired, worked with Mr. Shove and offers this narrative. "During the 30 years that I was the primary investigator and watchdog of corn quality for the major starch manufacturer, CPC International, Inc., formerly Corn Products Refining Co., I had many conversations and visits with Gene as well as several cooperative projects. He was also an active participant during the years that I was coordinator of NC-151."

Dr. Shove had a compelling interest in finding new ways of maximizing corn quality while reducing cost during in-bin drying. This passion led him to many

studies of bin aeration using automatic fan operation during low temperatures to reduce mold development during dry-down. He also pioneered studies on grain pretreated with propionic acid to inhibit mold development during in-bin drying with very favorable results and was used commercially for a few years. Another approach he investigated, mold development, but was not successful when tried on a large scale because of moisture condensation which did allow growth of mold species which could tolerate low temperatures.

Gene Shove was a dedicated Agricultural Engineer whose research has had a significant influence on design and operation of on-farm corn storage facilities resulting in better management and improved quality."

Purdue and Kansas State Universities Capture First Anderson Research Grant Program Team Competition



In 2000, NC-213 initiated the \$100,000 Anderson Research Grant Program: Team Competition. The goal of the Team Competition 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 grain and oilseed producers. This program is focused on facilitating multidisciplinary, multistate, and multiagency collaborative research to address critical cereal and oilseed research issues.

The 2000 award winners are Dr. Dirk Maier from Purdue University and Dr. Timothy Herrman from Kansas State University in collaboration with industry representatives and other NC-213 members. Their two-year project entitled, "Grain Facility System Analysis to Improve Adoption of Value-Enhanced Grain Handling and Marketing in the U.S." has two objectives: 1) To identify technical, social, economic, and institutional constraints that impede segregation of genetically modified, value-enhanced crops and 2) To create systems analyses and management tools to assist in the adoption of value-enhanced grain handling and marketing strategies.

This project will not only feature a collaboration between Purdue and Kansas State Universities but will involve the entire north central region with their analysis of 150 grain handling facilities and collaborate with other NC-213 members. Congratulations!!



Gain Important Information Through the Web

Have you had the opportunity to experience the PowerCATalog--Kansas State University's literature web site. This web site was discussed at the last Winter Technical Meeting. The web site can be found at: <http://www.lib.ksu.edu/depts/issa/voyager/databases.htm>. Basically, this is a search building database. Here is an example of how you could conduct a literature search on projects dealing with *aflatoxin*.

1) Simply access the web site. In the third paragraph you will want to click on "Search Now." This will take you to the main page of the PowerCATalog program. From this screen, you will want to select the database you wish to search. During this example research, we are going to use the ISSA-Information Support Services for Agriculture database. Select that database and click on "Connect." 2) The next screen will show the database name that you selected. You can enter your data in the "Search for" box and have the option of choosing "Any of These," "As a Phrase," or "All of These." Next, you have the option of your search area. You can choose "Keyword Anywhere," "Subject," "Title," "Author Name," "Journal Title Search," or "Publisher: Date." You can enter up to three search items. Click on "Search" and let the program research your request.

Here is the search example for *aflatoxin*. When the word "aflatoxin" was entered and "All of these" was selected and a search conducted 904 entries were found.

When the word "aflatoxin" was entered and "All of these" was selected, with "And with next set" and the next set being the word "Moisture" 81 entries were found.

For the last search, the word "aflatoxin" "All of These" were entered on the first search line, "moisture" and "As a Phrase" was entered on the second search line. The word "Preharvest" and "As a Phrase" was entered on the third search line and the "Search" was prompted, two entries were found.

