

Grain Quality Newsletter

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



Lowell Hill (left) accepts the Anderson Research Award from Bob Smigelski

Lowell Hill Named as the First Recipient of the Anderson Research Award

Lowell Hill, Department of Agricultural and Consumer Economics, University of Illinois, was named the first recipient of the Anderson Research award. The Anderson award was presented to recognize the outstanding research accomplishments that Dr. Hill has made in the area of quality cereals and oilseeds. Dr. Hill has long been recognized for his depth of understanding of many disciplines involved in improving grain quality. This depth enabled him to integrate the research results of physical scientists into economic models. Hill's pioneering research on causes of grain quality loss in international markets generated controversy; however, the strength of his economic concepts and his communication ability prevailed. Opponents gradually became supporters for change under the irrefutable logic of Hill's research and persistent application of economic principles. The 1986 Grain Quality Improvement Act and the 1985 and 1990 farm bills included sections drawn directly from Hill's research. In addition, in 1979(?)

Lowell Hill together with Don Anderson(?) and administrators from Ohio State University conceived of and initiated what today is known as regional project NC-213, "Marketing and Delivery of Quality Cereals and Oilseeds".

1999 Summer Workshop

The NC-213 Summer Workshop will be held in Maumee, Ohio and hosted by *The Andersons*, August 22-24, 1999. The theme for the workshop is "Will Specialty Grains Change the Markets or Will the Markets Resist Change." In addition, several speakers will provide some insight into the unique characteristics of the Great Lakes Region and a tour of The Andersons facilities. A complete program is presented at the end of this newsletter. You can register on-line at: <http://sun1.oardc.ohio-state.edu/nc213>.

Global Soy Forum 99

Rapid increases in soybean use and production over the last century require a celebration of the

past successes of the soybean industry. As we enter a new millennium, however, many new challenges are on the horizon for the entire soybean industry, from the farmgate to the consumer's table. Global Soy Forum '99 is a unique gathering of the entire global soybean community researchers, producers, agri-businesses, industry leaders, policy makers, and consumers—under one roof in the heart of U.S. soybean industry, Chicago, Illinois. <http://www.gsf99.uiuc.edu/wnew.html>

Anderson Research Grant Program Proposals Received

After a short hiatus, the Anderson Research Grant Program is up and running with \$150,000 available made possible by the Anderson Research Endowment administered by The Ohio State University, Ohio Agricultural Research and Development Center. This year 127 proposals were received and are now being reviewed. There will also be a new competition in the year 2000 that will emphasize multidisciplinary, multistate, and multiagency collaboration and will make \$100,000 available to a single research team.



The Impact of NC-213 Science

During 1998 NC-213 scientists have made new discoveries, developed new technologies, and have impacted the cereal and oilseed industry in many ways. Below are a few examples.



ISSUE: Successive bumper crops resulted in a storage deficit throughout the central and northern Plains states. In 1998, 71 million bushels of ground storage was approved for Kansas.

WHAT'S BEEN DONE: In response to this emergency storage of storage, scientists at Kansas State University and USGMPCRC initiated investigation into existing ground piling practices and formulated recommendations for preserving the quality of emergency outdoor grain piles. A series of multi-state and regional workshops were conducted and grain handlers became more knowledgeable about methods to store grain on the ground. A workshop proceedings and two Extension bulletins were prepared to augment this training.

ISSUE: Grain stored on the ground has experienced less quality



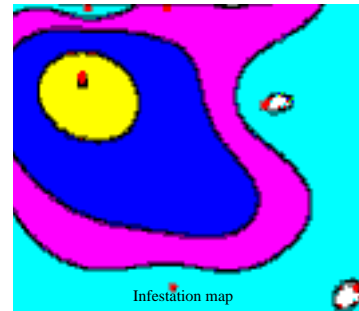
deterioration. This occurred in spite of heavy fall rain (in excess of 4 inches) and warm November

weather. Piles monitored in 1998 did not experience any off-odor or quality discounts while almost all grain stored on the ground in 1997 was graded "sample grade" due to odor problems.

THE SCIENTIST: Tim Herrman, Department of Grain Science and Industry, Kansas State University, Manhattan, KS

ISSUE: Minimize insecticide use in food warehouses and grocery stores by identifying the specific location of insect populations.

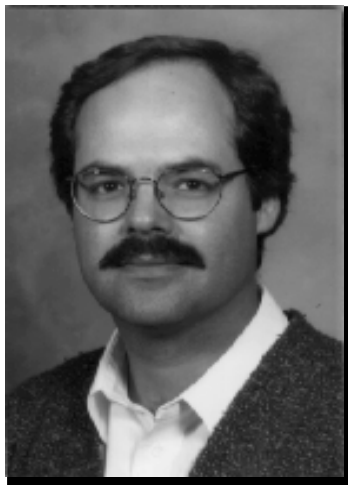
WHAT'S BEEN DONE: By



establishing a grid of traps and plotting the numbers of insects collected in each trap, a map of insect populations can be developed that will allow managers to precisely identify infested materials and limit the application of insecticides.

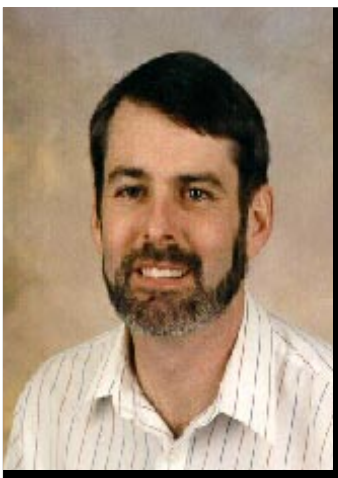
IMPACT: "The maps will give us a better understanding of insect movement and seasonal dynamics of stored-product insects and how to improve pest management programs in commercial facilities." By using maps to indicate the location of infestations, store managers have the opportunity to assess the risk of other products becoming infested. Effective insect monitoring is necessary to identify problem areas, minimize product contamination and maintain good will with customers.

THE SCIENTIST: Alan Dowdy, Biological Research Unit, Grain Marketing and Production Research Center, USDA, ARS, Manhattan, KS.



ISSUE: Rapid objective assessment of wheat color and protein on a single kernel basis and development of instrumentation that can be used to objectively assess a number of other quality factors on a single kernel basis.

WHAT'S BEEN DONE: The single kernel NIR procedures can detect scab, DON, and ergosterol in single wheat kernels; that wheat color class can be accurately determined; that internal insects can be detected in single wheat kernels; that parasitized weevils



and flies can be differentiated from unparasitized pupae; that NIR can differentiate between

damaged and sound figs.

IMPACT: Improve the quality and safety of food. Impact will depend on adoption and commercialization of the technology as favorable cost/benefit applications surface. In many cases, the benefits are unknown because the methodology, instrumentation and opportunity to evaluate did not previously exist.

THE SCIENTIST: Floyd E. Dowell, Grain Marketing and Production Research Center, USDA, ARS, Manhattan, KS

On the Net



NC-213's web site, is at: <http://sun1.oardc.ohio-state.edu/nc213>.

The NC-213 web site contains information on upcoming events, the Regional Project Plan of Work, and other items of interest. In addition, the site contains links to Internet sites that are devoted to cereals and oilseeds. Here are some new additions to the growing list.

Global Soy Forum 99. - www.gsf99.uiuc.edu/

The Andersons Inc. - www.andersonsinc.com/

The Hard Winter Wheat Quality Laboratory, USDA, ARS. - gqu1.usgmrl.ksu.edu/gqu/HWWQL/HWWQLHome.htm

Grain Marketing and Production Research Center Progress Report 1998. USDA, ARS - www.usgmrl.ksu.edu/report/report.htm



NC-213 Summer Workshop 1999 - Maumee, Ohio
Will Specialty Grains Change the Markets or Will the Markets Resist Change

Sunday, August 22, 1999

6:00 NC-213 Barbeque

Monday, August 23, 1999

8:30 Welcome - Bill Ravlin, NC-213 Coordinator

8:40 Welcome to The Andersons and Introduction to the Great Lakes region - Mike Anderson, President & CEO, The Andersons

9:00 Great Lakes grain systems - James Monger, Sector Manager, Cargill

10:00 Break

10:30 Great Lakes grain systems continued - James Monger, Sector Manager, Cargill

11:30 Discussion

12:00 Lunch

1:00 Differentiated marketing using existing technology in the global market place - Bill Grande: Partner Procession Grain Systems-Farmland

1:30 Top cross high oil corn: agronomic performance and grain quality - Peter Thomison, Maize extension specialist, The Ohio State University

2:00 An economic analysis of high oil corn for growers and feeders - Malcom H. Brown, David E. Hahn, and Donald W. Larson, The Ohio State University

2:30 Challenges for the wheat foods industry - Don Mennel, President, The Mennel Milling Co.

3:00 Break

3:30 Seed biotechnology - Who will be the Players? - Charlie Carr, General Manager, Seed Development, The Andersons

4:00 From the farm to the market place - Gunnar Lynum, Consultant, SMD, St. Louis, MO.

4:30 Market opportunities for specialty grains - Frank Beurskens, Consultant

5:00 Panel discussion

5:30 Adjourn

Tuesday, August 24, 1999

8:00 a.m. Tour of The Andersons facilities

The 1999 NC-213 Annual Meeting, Kansas City, Missouri



Charlie Hurburgh (Iowa State)



Tom Payne (Univ. of Missouri), Florence Dunkle (Montana State), and Bh. Subramanyam (Subi)



Lowell Hill (Univ. of Illinois) and Bill Ravlin (Ohio State)

Lowell Hill receives Anderson Research Award

GRAIN QUALITY NEWSLETTER

Published and distributed for NC-213 (NC-151) participants and supporters of research on "Marketing and Delivery of Quality Cereals and Oilseeds. Editor: F. William Ravlin, Coeditor: Karen Fedevich

The Grain Quality Newsletter is a free newsletter. Contributions to the newsletter are welcome. Send your contributions, comments, suggestions and subscription requests to:

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