

**Iowa Grain Quality Initiative  
Advisory Committee Meeting  
Meeting Minutes  
January 6, 2012**

**Present:** Randy Dunn, David Fairfield, Ray Hansen, Connie Hardy, Charles Hurburgh (moderator), Nick Huston, Larry Johnson, Ed Kordick, John Lawrence, Russ Like, Dan Loy, Robin Pruisner, Ryan Sauer, Howard Shepherd, Tim Sullivan

**Guest:** Cathann Kress, Executive Vice President for Extension at ISU  
Gretchen Mosher, Lecturer in Agricultural Biosystems and Engineering Dept.

**Welcome and Announcements:** Charlie Hurburgh reviewed the agenda.

**Update of the College of Agriculture/ (COA)/Agriculture and Natural Resources (ANR)**

**Extension:** John Lawrence reviewed recent activities at ISU, College of Agriculture, and Agriculture and Natural Resources Extension.

Dr. Steven Leath will begin as President of ISU on Jan. 17, 2012. He is a plant pathologist and Assoc Dean for Research at NC State. The last ISU President who had an agricultural background was James Hilton (1959-1965), so we look forward to Dr. Leath's perspective.

Enrollment in COA is currently 584 undergraduate students, close to the record of 600 students. Counting graduate students, the total is 800. Placement has been very high. This year, 160 firms are expected to come to the career fair on February 1.

COA has received more than \$40 million in grants this year, and one grant alone is for \$20 million.

We are optimistic about the Regents budget, which includes \$7.5 million request for bioeconomy projects, the bulk of which would come to ISU. Concern is with the federal budget. Both the 2010 and 2011 budgets, which were not signed on time, represented cuts that largely did not affect us, but we think it could snowball and affect us soon.

Construction is ongoing in the Curtiss Hall renovation to complete the new wing for student services. Construction of a Student commons in Curtiss Hall (named the "Harl Commons") will begin in Spring 2012. The Agricultural and Biosystems Engineering building is being built on the west side of campus. Also, a new learning center where livestock can be shown will be located at the old dairy farm south of campus.

The new issue of STORIES was handed out.

ANR has put emphasis on cross-disciplinary teams because issues involve more than one discipline. One such team is the Grain Storage and Management team, which includes engineers, agronomists, and economists. Other teams formed to deal with current issues are the Resistance team (weeds, BT, fungicide) and the Stover Harvest team.

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**Bioprocessing Group update:** Connie Hardy reporting. *Powerpoint presentation on website.* The group's current plan is to run the Iowa Grain Flow Survey (last done in 2006-2007) to determine changes in grain marketing and processing, and to include questions about enhancements to ethanol co-product processing (such as fractionation) and about food safety protocol as developing a Food Safety Plan.

**Grain Storage and Management team:** Charlie Hurburgh reporting. *Powerpoint presentation on website.*

ANR Extension is creating a structure to handle short-term and medium-term issues. Though the science of grain storage is well-known, the challenge has become the volume and value of the grain.

This is the first cross-disciplinary issue team within ANR and includes these field specialists:

Shaun Shouse, Greg Brenneman, Kelvin Leibold, Steve Johson, Mark Licht

The group intends to collect regional information, create a short multi-media clips on key topics, distribute annual technology reviews and updates, and issue early warning notes for special situations.

Randy Dunn asked if this is similar to what Kansas State University is doing? Charlie answered that likely their methods are similar, but KSU's largely involve wheat and will be delivered through the GEAPS distance education program. This program will be more locally delivered and will involve farmers in addition to grain handling personnel. It will be a three to five year plan focused on inventory management to heighten the understanding of managing good quality grain and maintain maximum value.

Charlie gave an overview of 2011 weather events and their influence on quality. We avoided aflatoxin due to the nighttime low temperatures. Southern areas had it and there were several recalls of dog foods. IDALS is surveying counties (corn and DDGS) for mycotoxins. None of the samples have shown cause for concern, but the findings confirmed that mycotoxin levels in DDGS are three times the levels found in the corn.

Ryan Sauer commented that higher protein might have increased the mycotoxin levels more than three times, and also that high test weights (62-63 lb/bu) have been common.

Routine quality tests also showed low protein *and* oil in soybeans. No one knows the reason that both are low.

Tim Sullivan suggested that the University should be nimble enough to respond to weather driven events, that statistically Iowa will experience some disastrous or extremely difficult conditions. The ability to deal with these problems rapidly will be of utmost importance because all the questions will come to us.

Ray Hansen asked at what point "quality" relates to whether we are using hybrid choice as a risk-management tool versus yield optimization. Is there any systematic approach given to hybrid selection? John Lawrence suggested that farmers will choose to maximize yield and buy crop insurance as risk protection. Randy Dunsnn suggested an example might be the use of drought-tolerant corn in parts of the country that are typically too dry to grow corn.

Ed Kordick asked if there has been a study on temperature within fields as plant populations increase?

For 2012, current predictions are for drought.

Has high-alpha-amylase corn been planted? Robin Pruisner commented that some producers will voluntarily inform IDALS. There is not yet a rapid test for high alpha-amylase corn, but it is important to identify as it will have an impact on corn uses. Randy Dunn said that an ethanol plant in western Iowa has contracted with farmers to produce it. Small amounts of alpha-amylase are not detrimental for livestock.

Has anything happened with Vipterra corn? Though it has not yet been approved in China, no trade issues have been raised.

**Food Safety Modernization Act** Charlie Hurburgh reporting *Powerpoint presentation on website*

Regulations will be distributed by FDA soon and will likely include:

- Updated facility registration every two years
- Written food safety plan for each facility
- Carrier certification and inspection (BSE)
- Surveillance inspection every 5-7 years

About 75% of FDA inspectors are contracted through the individual states, and only 25% are directly employed by FDA.

Increasing the accuracy of traceability will be very important. FDA is testing traceability through two pilot projects, one with tomatoes and with a multi-ingredient product.

In grains, mycotoxins are likely to be the problem that could potentially be wide-spread.

If there is a Class I (serious) recall, FDA will investigate the suppliers.

**Food Safety Inspection- Training for Bulk Agricultural Product Handling and Processing**

Charlie introduced the receipt of a grant from FDA for \$1.5 million for three years. ISU will partner with Kansas State University to include the feed milling aspect.

References will be ISO22000, coded to FSMA; PAS 220, 222; AAFCO: FDA job analysis.

The goal in developing this training is to mitigate confrontations between regulatory personnel and industry personnel.

**FDA Grant – Mapping, Supply Chain** Howard Shepherd reporting. *Powerpoint presentation on website.*

This part of the FDA project is intended to describe grain storage and handling at the farm level and move to the first-level or second-level processor to map grain flow. Risk points will be defined to help both grain handlers/users and inspectors identify and manage them. The newly required Food Safety Plan differs from HACCP in that it contains a “prevention” aspect.

Ed Kordick mentioned that our training programs need to focus on the things that the industry is doing correctly to prevent problems, rather than putting the primary focus on the problems.

**Risk Management** Gretchen Mosher reporting *Powerpoint presentation on website.*

Gretchen will create an interactive model that includes assessment of risk, management of risk, and communication to stakeholders. The model will:

- Visually depict grain supply chain
- Estimate percentages of product in each processing path
- Identify internal and external hazards within supply chain
- Establish probable control points

Discussion involved how to assess relative risk and how to communicate these to inspectors and also to industry members. FDA has modeled and assessed risks in the feed industry.

Charlie mentioned to the group that we are working with Angela Laury, faculty member in Food Science and Human Nutrition who serves as the ISU Extension Food Safety Specialist. Her work focuses on food safety in the processing sector.

Angela will make a presentation about Food Safety Plans at the AAI Showcase, Grain and Feed Workshop scheduled for February 7, 2012 entitled "Complying with Regulation in Occupational and Food Safety"

### **Cathann Kress, Vice President for Extension and Outreach**

Dr. Kress gave a brief history of her career and her relationship to Iowa as she had worked within Extension earlier in her career.

President Geoffrey refers to our unit as part of the mission unit at ISU, so we need to identify the best ways to leverage our relationships to extend research and teaching to people in throughout the state. Extension went through a major reorganization in 2009 which created significant staff reductions. Staffing patterns are changing, which has enabled us to create teams across a regions. Also, reorganization changed the role of the Extension Council members who are now organizing and fundraising for their counties. In terms of future funding, federal appropriations were held level, which was much better than we expected (expectations were for a 16% cut).

The October 2011 Leadership Summit included over 500 people discussing how to approach issues and opportunities. Extension is now creating an action plan as a result of these discussions. Summary is on the website.

Dr. Kress has asked CIRAS (Center for Industrial Research and Service) to write a business plan for Extension. This will lead to a strategic plan.

Extension has a "long-tail" graph of programming, meaning that we are meeting the needs of most of our clients with a few of our programs; the rest of the programs are serving much smaller audiences. The main program areas of Extension are:

- Center for Industrial Research and Service
- Agriculture and Natural Resources
- Families and Nutrition
- Communities

Highlighting the importance of creating teams, Dr. Kress noted the recent work related hail-damaged corn, flood damaged grain, and standing corn. Field and campus specialists had conversations with more than 10,000 growers to help manage these crop problems.

She also noted the importance of engaging faculty members in finding solutions to problems in communities and integrating students in community projects that strengthen their learning experiences. One such partnership with IDALS creates mini-opportunities for freshmen and sophomores in different agricultural industries in Iowa. Because future graduates will not necessarily have farm backgrounds, the science and technology involved in agriculture will not be well-known to prospective students. For this project-related work experience, a small stipend is offered for a specified time increment. Dr. Kress' experience with a national program involving similar work experiences indicated that students exceeded their required hours because they became so interested in the project.

### **Food Safety Modernization Act – Implications for the Grain and Feed Industry** David Fairfield, Powerpoint presentation on website

David is the Technical Director for Feed at the National Grain and Feed Association. He is a graduate of the Grain Science program at KSU and he has worked for Cargill and for Ridley Agriproducts. In his current position, he is working with FDA in the development of legislation related to FSMA.

#### *Summary:*

The Food Safety Modernization Act calls for a new prevention-oriented food safety system. It requires FDA to develop and issue more than 50 pieces of legislation. Legislation will be focused on Section 103 which includes preventive controls, monitoring, and record-keeping.

Regulated companies, including grain elevators, will need to use supplier verification programs in their food safety plans. Good Manufacturing Practices will be important. CFR 225

FDA may choose to modify the regulations to apply to facilities "solely engaged" in manufacturing animal food and storage of raw ag commodities. If grain elevators are exempted, they will likely be required by their customers to have food safety plans.

The Food Safety Preventative Control Alliance (members listed in presentation) will offer training. Its steering committee will be organized this month.

#### *Group Discussion*

It is clear that our IGQI Food Safety grant should be coordinated with other related efforts.

Should IGQI wait and see what the regulations are before developing training for inspectors and companies? (Yes)

Also, if elevators are exempt, but their customers then require a food safety plan, then what standards will be used to audit the plans for suppliers?

At a minimum, elevators will need to follow GMPs, and there may be a lack of understanding of CFR 110 or 225 regulations to comply with the GMPs.

As with the recent attempts by companies to determine their carbon footprint, some firms are waiting to see if compliance will be necessary.

Training of inspectors should be done cautiously. We need to follow the KSU training for feeds and medicated feeds, and develop training as it extends to the rest of the industry.

## **International Center for Grain Operations and Processing - update**

Charlie Hurburgh provided a summary of progress in the formation of this center.... As the experienced industry personnel approach retirement, the need for intensive training of younger grain industry staff is clear.

The five groups who will join as incorporators – ISU, AAI, KGFA, KSU, GEAPS – will meet on February 3, 2012 in Kansas City to sign incorporation papers. An interim board of directors will be named at that time. The board of directors will decide how funds are used by prioritizing research and training projects. KSU will continue with the GEAPS distance education course. AACC and AOCS have been invited to be on the board as ex-officio members. Board members contribute \$500,000 over 5 years. Iowa State University has made an in-kind contribution.

Larry Johnson mentioned that there are other entities at ISU that could contribute to this.

Tim Sullivan suggested that, like with the FSMA, it is difficult for an organization to be too far ahead of an issue. Sometimes the intended audience is quite unaware that something new is coming.

**Next meeting** will be on Friday, July13, 2012. More detail to follow.

Respectfully submitted,

Connie Hardy  
ISU Extension  
Value Added Agriculture Program