2008 Fall OTSC Advisory Committee Meeting

Several items on the agenda included a discussion of proposed policies involving sulfur content in feed ingredients and the management of aflatoxin contaminated grain. The Advisory Committee provides input on all policies that directly impact the industry and, as a goal, the Office of the Texas State Chemist seeks a consensus by the Advisory Committee members prior to implementation. To date, neither of the proposed policies discussed on October 18, 2008 have been issued by the Office. The policies discussed during the Advisory Committee meeting had been vetted for their scientific and legal merit prior to presentation.

Sub-Committee to Address Mycotoxin Policy

The Advisory Committee formed a subcommittee to address the problem of out-of-state shipment of aflatoxin contaminated grain. The Texas Commercial Feed Control Act exempts whole grain or whole seed not containing toxins or chemical adulterants §141.002 (c) (2). Thus, by definition, grain received by Texas grain elevators including those that export grain containing over 20 ppb aflatoxin falls under the regulatory authority of the Office of the Texas State Chemist. The Office has permitted free movement of grain over 20 ppb but less than or equal to 300 ppb within the state, as long as the grain was appropriately labeled and directed to the correct species as defined in Feed Industry Memorandum 5-12. Section 801(e) (21 U.S.C. 381(e)(1)) of the Food Drug and Cosmetic Act sets out the requirements for foods intended for export and conditions that must be met in order for the food not to be deemed to be adulterated. Section 141.148 of the Texas Agriculture Code states that “a person commits an offense if the person distributes, conspires to distribute, or causes another person to distribute commercial feed: … (6) That contains or bears a poisonous or deleterious substance that may render it injurious to animals under ordinary conditions of use;”

The Office of the Texas State Chemist is working with the Advisory Committee to craft a policy regarding aflatoxin contaminated grain to prevent its illegal movement out-of-state. A policy clarifies the Office of the Texas State Chemist’s action regarding a rule. The Office seeks guidance from the affected parties (distributors and consumers) regarding policy decisions through discussion with the Advisory Committee, which equally represents Texas feed and fertilizer consumers and manufacturers/distributors. Due to the public health concern regarding this policy, the Office of the Texas State Chemist will attempt to finalize the proposed mycotoxin policy this calendar year and provide a 30 day education period prior to implementation.
Sulfur Rule

The OTSC Advisory Committee recommended that the proposed sulfur policy be submitted to the Texas Register, which is a rule making procedure. A rule would provide a legal threshold for sulfur, at which point the Texas Feed and Fertilizer Control Service would consider this nutrient to be a poisonous or deleterious substance to ruminants, unless labeled to specify a maximum guarantee. The action level for sulfur concentration and the submission timeline to the Texas register have not been finalized. Complete feeds containing over 0.4% sulfur, when feed to ruminants, can result in polioencephalomalacia (PEM).

Summary of Compliance

GRAIN ELEVATOR AUDITS
In FY 2009, the Office of the Texas State Chemist (OTSC) will conduct audits on all state and federally licensed grain elevators in Texas. The audits assist in measuring compliance of the grain industry with the Texas Commercial Feed Control Act related to distribution of adulterated grain. Aflatoxin and fumonisin are common mycotoxin adulterants in corn. Grain above the action levels (>20 ppb aflatoxin and >5ppm fumonisin) places the grain under the authority of the OTSC. Elevators must be licensed to distribute adulterated grain or market the adulterated grain through another licensed elevator, properly label the grain, and channel it to the appropriate species/marketplace. When completed, a summary of the audits will be provided.

BEST MANUFACTURING PRACTICES (BMP) AUDITS
The OTSC is conducting Best Manufacturing Practices (BMP) audits for all permitted fertilizer facilities in Texas. The audits look at aspects of the plant, including receipt and storage of materials, standard operating procedures (SOPs), scales, mixing/batching procedures, records, storage of finished product, labeling, and overall plant and ammonium nitrate security. More than half the audits were conducted in FY 2008 and the remainder will be completed in FY 2009. When completed, a summary of the audits will be provided.

COMPLIANCE SUMMARY
One means to evaluate the performance of the feed and fertilizer industry is to measure conformance of the product to the labeled guarantees. This is accomplished through sampling and analysis of the finished products offered for distribution. The overall compliance for the feed and fertilizer industry in Texas is indicated below:

Feed 2007 – 23%  Fertilizer 2007 – 20%
Feed 2008 – 25%  Fertilizer 2008 – 21%
(2009 To Date)
Feed 2009 – 20%  Fertilizer 2009 – 19%

OTSC Continues Risk-Based Approach
In recent years the continued development of the OTSC data management system has provided for a risk-based sample projection and inspection work plan. It is essential to be able to quickly identify a firm’s level of conformance and compare against other firms. Those firms with a higher level of non-conformance may pose a greater risk to animal, plant, or human health through their manufacturing processes or as a result of the product not conforming to the labeled guarantees. Efforts can then be made to target those firms with more oversight, sample collection, and inspection. Last year, as a result of the risk-based approach, OTSC intervened in the production and distribution of three manufacturers. All products were placed under a stop-sale order until the manufacturer could demonstrate product conformance to the labeled guarantees and that standard operating procedures (SOPs) were in place and being followed. Those without SOPs were required to develop and implement them prior to withdrawing the stop-sale order and being allowed to distribute any additional products.
Electronic Delivery of Official Sample Reports

OTSC will soon have the capability to send official sample reports via e-mail. This process is in addition to the official report that OTSC normally sends through the regular postal mail. The objective of this electronic delivery is to provide timely information to the customers. The content of the e-mail from OTSC includes the official Analytical and Registration sample reports for a product in Adobe PDF format. To view/print these attached documents, Adobe Acrobat Reader is required which is easily available through Adobe website (www.adobe.com).

To send reports by e-mail, we need the name of the contact person and e-mail address from our registered feed and fertilizer firms so that the e-mail can be sent with official reports through our internal management information system. Please contact our Registration staff via e-mail or phone to keep our database updated for the firms’ contact person name and e-mail address.

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**Mail From:** <web@otsc.tamu.edu>  
**From:** <web@otsc.tamu.edu>  
**To:** <joe@jofarm.com>  
**Subject:** Official Sample Report from the Office of the Texas State Chemist.

Please see the attached file/files for our official report on the following product:

**JOE ABC BEEF PRODUCT NAME**

Please do not reply to this email.

If you have any questions or comments, you may contact our office by email at web@otsc.tamu.edu or by phone at 979-845-1121

**Reference Sample Number:** 2009123456
Office of the Texas State Chemist

Mailing Address:
P. O. Box 3160
College Station, TX 77841

Physical Address:
445 Agronomy Road
College Station, TX 77843

Phone: 979-845-1121
Fax: 979-845-1389
Web: http://otscweb.tamu.edu

INTRODUCING

Susie Yuan Dai, Research Assistant Professor

Susie Dai is now working as a research assistant professor in the Office of the Texas State Chemist with a joint appointment in the department of Veterinary Pathobiology of the Veterinary School. Susie Dai graduated from Duke University in 2006. After obtaining her PhD in chemistry, she continued her post-doc training at the Scripps Research Institute in the department of Biochemistry and Molecular Therapeutics. In 2007, Susie joined the Oak Ridge National Laboratory and continued her research in biochemistry and biophysics. Her background focused in biological researches with modern mass spectrometry.

Dennis Shelly, Associate Professor

Dennis Shelly was trained as an analytical chemist (Ph.D.-TAMU-1982) and has worked in industry (Eli Lilly & Co.-1983) and academia (Postdoc.-Indiana University-Bloomington, IN, Asst. Prof.-Stevens Institute of Technology, Hoboken, NJ and Texas Tech University, Lubbock, TX) since 1984. He is currently an Associate Professor of Chemistry and Biochemistry on Development Leave for one year at OTSC. Dr. Shelly is the Director of the Engineered Protein Materials Lab and the Leather Research Institute at Texas Tech. He has become a leather chemist since 1997 and has served in many offices with the American Leather Chemists Association, ultimately as their President in 2006. Dr. Shelly has 57 peer-reviewed publications and 210 personal and contributed presentations. Dr. Shelly hopes to learn the operations of analytical testing for food-borne toxins in a regulatory environment during his development leave at the OTSC. He is working on the implementation of rapid screening procedures for fungal mycotoxins in animal feeds and related products using liquid chromatography with tandem triple quadrupole mass spectrometry. Dr. Shelly ultimately hopes to fuse his knowledge acquired at OTSC with his leather chemistry background to benefit animal agriculture interests enabling them to develop better raw materials (hides and pelts) for the US leather industry.