Regulatory Services News

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Feed - Fertilizer - Milk - Seed - Seed Testing - Soil

FALL 2013

Director's Digest- Fall, 2013

What a difference a year makes. At this time last year (end of August) many of us were feeding hay and worried about mycotoxins in the corn crop. Growing conditions have been much better this year and hopefully will continue into the fall and give us a much needed large corn harvest.

Regulatory Services has also undergone many changes in the past year. We have finished our reorganization and are fully staffed for the first time in several years. Other articles in this newsletter will introduce you to our newest employees. Everyone is learning their roles and we are constantly evaluating ways to increase our efficiency to provide results quicker.

We realize that many in the agriculture industry in Kentucky wish they did not have to deal with regulatory agencies. Hopefully, you realize that in addition to our role of protecting the consumer we are also trying to keep the playing field level for our agriculture businesses. While many often disagree with referees do you really think you could play the game without them?

The Food Safety Modernization Act (FSMA) will affect the feed industry but programs have yet to be announced. Likewise, I anticipate additional regulations for the fertilizer industry as a result of the West, Texas incident. Regulatory Services may have some role in each of these, and our goal is to work with the affected industries in implementing any new rules. I believe education and interaction are key components of enforcement and we will do anything we can to educate and interact. We instituted a seed advisory board last spring to review seed service pricing and regulatory fees and forms. We hope to reactivate our feed advisory board in the near future. Our web site can provide much of the information you need but don't hesitate to call or email any of our program directors or myself with questions you may have. If you are involved in trade organizations and would like us to give a presentation on any of our programs, we are open to that as well.

It's been a good year for most of our forage and grain crops which is certainly good for our livestock and poultry industries. We've had a good year at Regulatory Services as well and look forward to working together in the coming months.

Darrell Johnson, Executive Director

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Can I save or sell seed off of the farm?

Each year we get several phone calls on whether a grower can save wheat seed for their own planting with the goal of saving on their input costs. The most common answer is "maybe". Some seed can be saved legally while others cannot. Some varieties are protected with a Plant Variety Protection (PVP) certificate or a US patent. If a variety is protected by a US patent the seed cannot be saved. A PVP variety can be saved, but only the amount that the grower can utilize on their own planted acres. The US patent and PVP protected varieties cannot be sold by the grower as seed. When seed is initially purchased, the label will usually specify if it is PVP or patented.

Some varieties are not protected and these can be saved, planted or sold and not be in violation of any federal or state laws. Requirements of state seed laws must be adhered to when seed it offered for sale. This includes advertisements in local papers, internet or signs on the side of the road indicating that seed is for sale. In Kentucky a permit to label agricultural seed is needed if you tag the seed yourself, or official seed tags can be purchased from our Division for labeling of seed intended for sale. The permit to label allows the permit holder to create their own seed labels and submit a quarterly report of seed sales based on the number and weight of the packages sold.

Seed which is saved for planting purposes should be properly cleaned and tested to make sure the quality you desire is present in the lot. Seed intended to be sold requires a laboratory test to determine the seed purity, germination and noxious weed content of the lot being sold. Some lots may contain noxious weeds or a low germination which may not meet the standards to be sold. All containers and seed sold in bulk must be labeled according to this test. The seed analysis tag is a guarantee to the purchaser of the content of the seed lot so please be aware of the liabilities of selling seed. If you need more information, please contact Stephen McMurry at smcmurry@uky.edu.

Stephen McMurry, Director Fertilizer and Seed Program

Chemical Advisory: Safe Storage, Handling, and Management of Ammonium Nitrate

On August 30, 2013 the United States Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) published a chemical advisory for safe storage, handling, and management of ammonium nitrate. I have taken the following from the advisory.

Past accidents involving ammonium nitrate

- AN will self-compress/self-confine under some conditions, becoming much more likely to explode.
- AN is at risk for explosion when stored near other material that can add fuel to the AN such as grain, sugar, seeds, sawdust, and most especially petroleum fuels such as diesel.
- AN is a powerful oxidizer and a rich source of nitrate, which provides energy to an explosion. Thus, the presence of fuel and/or heat (and especially both) near AN is a very high hazard situation.

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Hazard information

"Pure" ammonium nitrate is stable and will explode only under extraordinary circumstances. However, the addition of combustible materials such as sugar, grain dust, seed husks or other organic contaminants, even in fairly low percentages, creates a dangerous combination and the ammonium nitrate mixture becomes far more susceptible to detonation. This characteristic of ammonium nitrate underlies most of the advice and recommendations for safe handling contained within the advisory.

Confinement and/or the addition of fuel to AN creates a real danger of explosion. The addition of heat when either of these conditions exists can lead to disaster. Accordingly, the responder should quickly assess if AN has been involved in the fire and whether the AN has been compromised in any of these ways, and plan the fire response accordingly.

Hazard reduction

We recommend that AN be stored in purpose-built facilities/buildings of non-combustible construction. Dust-producing organic materials, such as grain, seeds and sugar, should not be stored near AN. Some metal powders such as aluminum powder are equally dangerous. AN should be stored so as to ensure it is not contaminated by gasoline, diesel or other fuels, and is not subject to high heat (even in one small area of a large stockpile) or water infiltration.

Community emergency planning

We recommend that fire services visit any facility reporting AN, and that the conditions of storage and manner of handling be reviewed by fire service personnel. Fire service and other emergency responders should take note of the specific location(s), amounts and packaging of stored AN. Conditions of storage should be reviewed with the facility operator in light of the information provided in this document.

In the interest of community safety, it is often necessary and appropriate for first response officials to reach out to facility owners and operators, and determine if unreported risks are present in their community. Helping a neighbor, facility operator, or employer to understand and meet his obligations to the community and to workers is in everyone's best interest

Emergency response

Owners and operators of facilities holding AN have an obligation to ensure their community's first responders are aware of the hazards associated with the AN. Reliance on a report may not always be sufficient. Owners and operators should take a pro-active approach to reaching out to the emergency response officials in their location and ensuring that the hazards of AN are understood by the responders.

Information resources

We have the entire advisory posted at the following link: http://www.rs.uky.edu/AN advisory.pdf

If you would like a printed copy please contact June Crawford at 859-257-2668 or at june.crawford@uky.edu.

Please feel free to contact me if you have any questions at smcmurry@uky.edu or at 859-218-2440.

Leadership Positions Filled in the Laboratories

The Division underwent reorganization last November with the hiring of new management positions to oversee regulatory, laboratory, and quality control functions. Soon after these positions were filled, two leadership positions were filled in the laboratories. In February, Bob Kiser became Assistant Manager of Laboratories. In March, Kristin Brock became Laboratory Supervisor. The Assistant Manager aids the Laboratory Director in managing laboratory functions with a primary responsibility of organizing work flow in the feed and fertilizer lab. The Laboratory Supervisor position oversees all functions of the milk lab and some aspects in feed analyses. A primary directive for the laboratories after the reorganization was to improve turn-around time for feed and fertilizer analyses. The laboratory has been very successful in reducing turn-around time by 15 days on the longest held samples. This success is due to our skilled laboratory staff and effective leadership from Bob and Kristin in our two new positions. Below are brief biographies of these two individuals.

Bob Kiser: Bob has 40 years of experience in various laboratory functions within our Division. He has a B.S. degree in microbiology from Baylor University and has done graduate work in Microbiology at the University of Kentucky. His main experience has been on feed analysis, particularly with testing for medicated drugs. In recent years, he took on added responsibility as temporary Milk Coordinator overseeing the milk regulatory program during a position vacancy. His knowledge of the various laboratory functions and familiarity with laboratory staff are very valuable assets to our Division.



Kristin Brock: Kristin has been with the Division since 2005. She came to our Division with a B.S. in Biology from the University of Kentucky and 4 years of experience as a Microbiology Analyst at a private laboratory. For the last 7 years, she has worked as a Technician in the milk laboratory performing all required tests and ensuring continued lab certification by the FDA. While employed with the Division, she continued her education and received an M.S. degree in Animal and Food Sciences from the University of Kentucky in 2010. Her current position as Laboratory Supervisor oversees testing in the milk laboratory and fat and fiber analyses of feed samples. Kristin's experience and dedication to quality analytical results in service to our customers are valuable assets in her new leadership role.



Dr. Frank Sikora-Director-Laboratories & Soils Program

Employee Updates in the Regulatory Services Laboratory

Several staff changes have occurred in the laboratories over the last four months. Our longest term employee recently retired and three energetic young individuals have filled vacancies. Our new employees are eager to provide excellent service in supporting Kentucky agriculture. Backgrounds on each of these employees and positions are provided below.

Retirement of Ellen Bishop

After 43 years and 10 months, Ellen has finally weighed her last sample. Ellen started on August 21, 1969 working in the feed and fertilizer lab in the atomic absorption area. She eventually transferred to the nitrogen and protein analysis area. For 40 years she has analyzed nitrogen and protein by the Kjeldahl method and nitrogen combustion analysis. Ellen was a dedicated analyst and will be missed by all in the lab. We hope her and her husband Jerry have many happy years of retirement. Good luck Ellen.

Meghan Short

The newest addition in the Milk Lab is Meghan Short. Meghan is a native of Monroe, Ohio. She attended Eastern Kentucky University and graduated in 2012 with a BS in Biology. Meghan started at Regulatory Services this summer. In the Milk Lab she analyzes samples for milk components, somatic cells, antibiotics, and bacteria. She also helps in feed analysis for fat and fiber. Meghan is fully certified for all Section 6 testing by the FDA. We are happy that Meghan joined Regulatory Services.



Karen Nichol

Karen is the newest addition to the Soil Lab. She is a native of Rochester, NY but has spent most of her life in central Kentucky. Karen has an associate degree from Bluegrass Community and Technical College and has attended UK. She has worked at Regulatory Services for a few years previously in the Soil and Seed labs. In those positions she has been involved in many analyses. On a side note, Karen is in the honey business with her soon to be husband, Matt. They will be married in September. We wish Karen the best of luck and are happy to have her in the Soil lab.



Jonathan Collett

The newest member of the Feed and Fertilizer lab is Jonathan Collett. Jon is a native of Lancaster, Kentucky. He graduated from the University of Kentucky in 2010 with a BS in Forestry. While in college he worked in the Seed lab as a student worker. His main duty is analyzing nitrogen and protein in fertilizer and feed by the nitrogen combustion analyzer. He also has been doing Selenium analysis in animal feed. We are very glad to have Jonathan join our lab.



Robert Kiser

Assistant Director of Labs

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Feed Sampling

In this issue of our newsletter, I'd like focus on one of the more visible functions of the Feed Division of Regulatory Services - the collection of samples by our inspectors.

Under the authority of KRS 250.581, our inspectors may take samples of commercial feeds offered for sale as feed or for mixing in feed. These official samples are collected using recognized sampling methods, properly documented and sent to our lab in Lexington. The sample is accompanied by a feed label with the nutrient guarantees.

When the sample and paperwork arrive at our lab, they are logged in and assigned a 5-digit tracking number. All samples are checked for registration status (KRS 250.551 requires that all commercial feeds sold in Kentucky be registered). Labels may also be reviewed at this time to check compliance with Kentucky regulations (12 KAR 2:011-2:041). The nutrients to be analyzed by the lab are then selected based on intended use of the product and label guarantees. When all analyses are complete, the results are reviewed and reports sent to the feed mill and the manufacturer (if different from the mill). If any nutrient does not meet guarantees, a notice of violation and request for investigation is sent to the manufacturer (or the company name listed on the label).

In 2012, we collected and analyzed around 2,600 feed samples. Approximately 50% of these samples were commercial animal feeds while 20% were feed ingredients. The remaining 30% were specialty feeds, primarily dog and cat foods or treats. Nearly 19,000 analytical tests were conducted on these 2,600 samples.

Why do we collect all these feed samples and run all these analytical tests? The short answer is that we do this to keep the playing field level for all feed manufacturers selling products in the Commonwealth and to ensure that the consumer gets what they are paying for. Sampling and providing analytical results also provides a service to feed mills as a check of their formulation and feed mixing. We welcome the opportunity to work with feed manufacturers facing challenges with meeting tag guarantees.

Our Kentucky feed sampling program is best described as surveillance. The goal is to take samples that represent the feed business in the state and we sample around 10% of products sold. We are also developing risk-based sampling models that will allow us to better address the issue of feed contaminants. If a surveillance program is about what is supposed to be in the product, a risk-based, contaminant program looks for what is not supposed to be present. While Regulatory Services will continue to conduct surveillance sampling, risk-based sampling will likely play a larger role in the coming years.

G. Alan Harrison, Director Feed/Milk Programs

Regulatory Services News is published quarterly for the feed, fertilizer, milk and seed regulatory programs and the seed and soil service testing programs of the Division of Regulatory Services. It is provided free to persons interested in these programs. For subscriptions or address changes, contact our office at (859) 257-2785. You can also access Regulatory Services News on the Internet at http://www.rs.uky.edu.

The College of Agriculture is an Equal Opportunity Organization

Inspector News- Jim True

The Division or Regulatory Services held the annual Summer Inspector Training at Jenny Wiley State Park on July 16-18. The field inspectors along with the Division of Regulatory Services Management Team attended the three day training.

The first day was spent on the Fertilizer Program as Steve McMurry, Director of the Fertilizer Program reviewed the past year fertilizer sampling program and presented plans for the upcoming year.

The second day was spent on the Feed Program and the morning session was attended by FDA personal from the District Office. FDA reviewed the BSE/Medicated Feed Mill inspections that we conduct each year. This past year we conducted 75 BSE inspections and 4 Medicated Feed Mill inspections. FDA also gave an update on the new Food Safety Modernization Act that is currently going into effect. The new contract for this new year will include the BSE inspections that we have been doing but will be adding new GMP Medicated Feed Mill inspections at non-licensed feed mills. The afternoon session was presented by Dr. Alan Harrison, Director of the Feed and Milk Program. Dr. Harrison reviewed the past year feed sampling results and we had a team discussion for the plans for the next year for the feed program sampling and inspection plans.

Dr. Harrison also gave an update on the milk inspection program and the current changes in the dairy industry in Kentucky.

Dr. Frank Sikora, Director of Labs reviewed the past year on the lab results of samples taken. He also discussed some new equipment and some new lab methods that the lab is putting in for the new year.

Dr. Sharon Webb, Director of Quality Control presented information on the check sampling program that we use to make sure our lab results are accurate. She also presented some information on lab certification that may be used for some lab methods in the future.

The third day was spent on the Seed Program as Steve McMurry, Director of the Seed Program reviewed the results of the past year sampling and lab results and presented plans for the next year sampling and inspections. He also discussed the issues related to sampling the refuge in a bag with the corn samples that the inspectors collect.

Dr. Darrell Johnson, Division Director also spent some time with the inspectors in an open discussion about the feed, seed, fertilizer and milk programs. He shared his vision of his expectations and the goals for the inspection staff for sampling and inspections for the new year.

Jim True

If you know of anyone that you feel would benefit by receiving the Regulatory Services Newsletter, please have them visit the Division's website at www.rs.uky.edu, navigate to the Newsletter page and submit their contact information.

INSPECTOR AWARDS- Jim True



Brad Johnston has completed 15 years of service as an inspector with the Division of Regulatory Services. Brad lives in Hart county and is responsible for 11 counties from Meade county to the north and Monroe county to the south.



Dave Mason has completed 25 years of service as an inspector with the Division of Regulatory Services. Dave lives in Mason county and is responsible for 29 counties in northeast Kentucky from Boone to Pike county.

Congratulations to Brad and Dave and thank you for your dedication and efforts as a regulatory inspector.

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