As I write this, the investigation of the explosion at the fertilizer facility in West, Texas is ongoing. This was a terrible disaster and appears to be related to stored ammonium nitrate. Certainly our thoughts and prayers continue to go out for those who lost their lives. Articles I have read to date in the popular press make strong commentary about the lack of regulation on a federal, state or local level of fertilizer facilities. This is another black eye for agriculture. I do not know where this will end up but will not be surprised to see stronger regulation of the fertilizer industry.

In a similar vein, I would encourage you to get on the internet and do a search of “Ag Gag Laws” and see what pops up. The term “Ag Gag” for the laws was coined by a New York Times columnist and is not meant as a compliment. Several of these laws have been proposed across the country and have passed in our neighboring states of Missouri and Tennessee. These laws vary from state to state but are meant to protect farmers from people taking videos or recordings on their farms without permission. Many also add the amendment that if such videos are taken, they must be turned over to law enforcement within 24-48 hours without being edited. I agree with protecting the privacy rights of farmers but these laws are really stirring up the anti-agriculture community. Below are some comments from a recent article in the Austin Chronicle:

“Factory farms are not farms at all. They are corporate-run concentration camps for pigs, cows, chickens, turkeys, and other food animals. . . . . The only thing that will gag you worse than viewing the gross animal abuse taking place in these factories is to look at the grossly-repressive and aptly-named ‘ag –gag’ bills moving through the legislative sausage mills of various state. The bills are ridiculous – but so are some legislatures, where corporate money trumps both common sense and the Constitution.”

Certainly this is not the kind of publicity we in the agriculture industry want. The majority of us who farm, whether part time or corporately, do everything we can to keep our livestock healthy and content. We realize this increases production but also know it is the right thing to do. Unfortunately, there are those who do not care for their livestock properly and give the rest of us a black eye. In addition, even the most conscientious farmers will occasionally have events occur that if caught on tape could be construed as abuse or neglect when in reality they were unfortunate accidents. In my opinion, anyone who intentionally abuses or neglects animals should be prosecuted to the full extent of the law but I would not support prosecution for unfortunate accidents caught on tape.

Continued page 3
Division Contact Information  
Phone: (859) 257-2785  
Fax: (859) 323-9931

Executive Director  
Dr. Darrell D. Johnson  
darrell.johnson@uky.edu

Auditor  
Robert Counts, Jr.  
robert.counts@uky.edu

Feed/Milk Program  
Dr. Alan Harrison-Director  
alan.harrison@uky.edu

Kristen Green, Registration Specialist  
kristen.mary.green@uky.edu

Bob Hickerson, Milk Inspector  
rhickers@uky.edu

Kay Phillips, Staff Assistant Feed  
kphillip@uky.edu  
Fax: (859) 323-9931

Yvonna Daily, Staff Assistant Milk  
yvonna.daily@uky.edu  
Fax: (859) 257-7351

Fertilizer & Seed Programs  
Stephen McMurry-Director  
smcmurry@uky.edu

June Crawford, Staff Assistant Fertilizer  
june.crawford@uky.edu  
Fax: (859) 257-9478

Marilyn Smith, Staff Assistant Seed  
mm.smith@uky.edu  
Fax: (859) 257-7351

Inspector Coordinator  
Jim True  
jim.true@uky.edu

Inspectors  
Mark Barrow  
mcbarr2@uky.edu

Nathan Keith  
nathan.keith@uky.edu

John Flood  
jflood@uky.edu

Brad Johnston  
bjohnsto@uky.edu

David Mason  
dwmason@uky.edu

Warren Pinkston  
wwpink00@uky.edu

Terry Prather  
tprather@uky.edu

Bart Young  
bart.young@uky.edu

Laboratories & Soils Program  
Dr. Frank Sikora-Director  
fsikora@uky.edu

Bob Kiser-Assistant Laboratory Manager  
rkiser@uky.edu

Quality Control Program  
Dr. Sharon Webb  
sfwebb2@uky.edu
All of us in the agriculture sector are under increasing scrutiny from the public. Whether we are producing livestock, growing crops or in the ag business sector, we are being watched. Increased regulations of all due to the sins of a few are not what any of us want. Please make every effort to keep your farm or ag business clean and in compliance with the laws.

Darrell Johnson, Director

Labeling Guidelines for Commercial and Customer-Formula Feeds
Dr. Alan Harrison – Director Feed and Milk Programs

Kentucky Revised Statutes and Administrative Regulations define and provide labeling requirements for both commercial and customer-formula feeds. KRS 250.501 defines commercial feed and customer-formula feed in the following manner:

"Commercial feed" means all materials except unmixed seed, whole and unprocessed, when not adulterated within the meaning of KRS 250.541(1) which are offered for sale as feed or for mixing in feed. The director by administrative regulation may exempt from this definition, or from specific provision of KRS 250.491 to 250.631, commodities such as hay, straw, stover, silage, cobs, husks, hulls, and individual chemical compounds or substances when the commodities, compounds, or substances are not intermixed or mixed with other materials, and are not adulterated within the meaning of KRS 250.541(1);

"Customer-formula feed" means commercial feed which consists of:
- A mixture of two (2) or more commercial feeds;
- A mixture of one (1) or more commercial feeds and one (1) or more feed ingredients; or
- A mixture of two (2) or more feed ingredients; each batch of which is manufactured according to the specific instructions of the final purchaser;

Kentucky Administrative Regulations describe the appropriate labeling format for commercial and customer-formula feed (12 KAR 2:011).

Section 1. A commercial feed, other than customer formula feed, shall be labeled with the information prescribed in this administrative regulation on the principal display panel of the product and in the following format:
1. Product name and brand name, if any, in conformance with 12 KAR 2:016;
2. If a drug is used the word "medicated" shall appear directly following and below the product name in type size no smaller than one-half (1/2) the type size of the product name;
3. Product purpose statement as required by 12 KAR 2:017;
4. If a drug is used:
   A. The purpose of medication (claim statement); and
   B. An active drug ingredient statement listing the active drug ingredients by their established name and the amounts in accordance with 12 KAR 2:021, Section 4;
5. The guaranteed analysis of the feed as required by KRS 250.521(1)(b) and 12 KAR 2:018;
6. The listing of feed ingredients as required by 12 KAR 2:026;
7. Directions for use and precautionary statements as required by 12 KAR 2:031 and 12 KAR 2:036;
8. Name and principal mailing address of the manufacturer or person responsible for distributing the feed. The principal mailing address shall include the street address, city, state and zip code; however, the street address may be omitted if it is shown in the current city directory or telephone directory of the city or county wherein the manufacturer or distributor maintains his principal place of business; and
9. The quantity statement of the net weight, net volume or count.
Section 3. **Customer-formula feed** shall be accompanied by a label, invoice, delivery ticket, or other shipping document bearing the following information:

1. The name and address of the manufacturer;
2. The name and address of the purchaser;
3. The date of sale or delivery;
4. The customer-formula feed name and brand name, if any;
5. The product name and net quantity of each registered commercial feed and each other ingredient used in the mixture;
6. The directions for use and precautionary statements as required by 12 KAR 2:031 and 12 KAR 2:036; and
7. If a drug-containing product is used:
   A. The established name of each active drug ingredient and the level of each drug used in the final mixture as required by 12 KAR 2:021. (AES-2 (1973)-2; 1 Ky.R. 998; eff. 6-11-75; Am. 23 Ky.R. 1604; 2703; eff. 1-10-97.)

**Implications**

From a regulatory standpoint, the major differences between a commercial feed and a customer-formula feed lie in labeling requirements. A commercial feed requires both a list of ingredients (or collective terms) and a guaranteed analysis based on animal species. Unless the manufacturer has been granted an exemption from registration by Regulatory Services, each commercial feed must be registered.

Customer-formula feed requires the name and address of manufacturer and purchaser, date of sale or delivery, and feed name and brand name, if any. A customer-formula feed also requires the product name and net quantity of each registered commercial feed or ingredient used in the formula. The feed manufacturer does have some flexibility in how they provide the required information (label, invoice, delivery ticket, etc.). Customer-formula feeds do not require a guaranteed analysis on the label and do not require registration.

If a manufacturer chooses to label a customer-formula feed in the same manner as a commercial feed and not provide the formula ingredients and quantities to the customer, the feed falls under the same guidelines as a commercial feed. The label would require a list of ingredients or collective terms and an appropriate guaranteed analysis. Additionally, product registration would be necessary. Examples of acceptable tags for both commercial and customer-formula feeds are shown.

In terms of inspection fees of $0.35/ton (KRS 250.561), commercial feed and customer-formula feeds are considered equivalent and subject to the same fees and exemptions. During inspections by authorized agents of Regulatory Services (KRS250-581), official samples may be collected of both commercial and customer-formula feeds. For commercial feeds, analytical results will be compared to the guaranteed analysis listed on the product label. For customer-formula feeds without a guaranteed analysis, analytical results will be compared to calculated nutrient content.

---

**COMMERCIAL FEED TAG**

**14% GOAT FEED**

For Growing and Mature Goats

**Guaranteed Analysis:**

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Minimum/Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Protein</td>
<td>14.00 %</td>
</tr>
<tr>
<td>Crude Fat</td>
<td>2.50 %</td>
</tr>
<tr>
<td>Crude Fiber</td>
<td>7.00 %</td>
</tr>
<tr>
<td>Calcium</td>
<td>0.20 % - 0.70 %</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>0.60 %</td>
</tr>
<tr>
<td>Salt</td>
<td>0.40 % - 0.90 %</td>
</tr>
<tr>
<td>Copper</td>
<td>10 PPM</td>
</tr>
<tr>
<td>Selenium</td>
<td>0.10 PPM</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>2000 IU/LB</td>
</tr>
</tbody>
</table>

**Ingredient Statement:**

Grain Products, Plant Protein Products, Roughage Products, Processed Grain By-Products, Ammonium Chloride, Molasses Products, Calcium Carbonate, Dicalcium Phosphate, Salt, Magnesium Oxide, Manganese Oxide, Ferrous Carbonate, Copper Sulfate, Zinc Oxide, Cobalt Carbonate, Calcium Iodate, Sodium Selenite, Vitamin A Supplement, Vitamin D₃ Supplement, Vitamin E Supplement.

**Feeding Directions:**

Feed to growing and mature goats at the rate of 0.5 to 1.0 pound per 100 lbs. of bodyweight per day. Always provide adequate roughage in the form of good quality hay or pasture.

Caution: Use only as directed. For ruminants only.

<table>
<thead>
<tr>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
</tr>
<tr>
<td>City, State Zip Code</td>
</tr>
<tr>
<td>Telephone (optional)</td>
</tr>
</tbody>
</table>

NET WT 50 LB (22.67 kg)

**NOTES:**

REQUIRES PRODUCT REGISTRATION PRIOR TO SALE

---
CUSTOMER FORMULA FEED EXAMPLE 1

Date: May 1, 2013

Purchased by: Jones Farms
123 Kentucky Way
Lexington, KY 40546

Jones Farm 12% Sweet Horse Feed

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Pounds (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>415</td>
</tr>
<tr>
<td>Oats</td>
<td>300</td>
</tr>
<tr>
<td>Soybean Meal</td>
<td>100</td>
</tr>
<tr>
<td>Wheat Middlings</td>
<td>100</td>
</tr>
<tr>
<td>Cane Molasses</td>
<td>50</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>15</td>
</tr>
<tr>
<td>Dicalcium Phosphate</td>
<td>15</td>
</tr>
<tr>
<td>Salt</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Weight 1000

Directions: Feed to mature horses at the rate of 4 to 12 pounds per head per day depending on activity and body condition.

Manufactured by:
UK Div Reg Svcs Feed Mill
103 Regulatory Services Bldg
Lexington, KY 40546

NOTES:
DOES NOT REQUIRE REGISTRATION PRIOR TO SALE

Directions for use and precautionary statements may be required if product contains an additive or ingredients requiring additional information such as drugs and non-protein nitrogen. Additional directions for use and precautionary statements may also be required (12 KAR 2:021, 2:031 and 2:036).

CUSTOMER FORMULA FEED EXAMPLE 2

JONES FARM 12% SWEET HORSE FEED

A Supplement for the Maintenance of Mature Horses

Guaranteed Analysis:
- Crude Protein, minimum 12.00 %
- Crude Fat, minimum 2.80 %
- Crude Fiber, maximum 7.00 %
- Calcium, minimum 0.75 %
- Calcium, maximum 1.25 %
- Phosphorus, minimum 0.60 %

Ingredients:
Corn, Oats, Soybean Meal, Wheat Middlings, Cane Molasses, Calcium Carbonate, Dicalcium Phosphate, Salt.

Feeding Directions:
Feed to mature horses at the rate of 4 to 12 pounds per head per day depending on activity and body condition. Always provide adequate roughage in the form of good quality hay or pasture. Additional vitamins and minerals are recommended. Allow horses to adjust to grain feeding before feeding high rates. It is recommended to feed equal amounts at the AM and PM feeding.

Made exclusively for Jones Farms. Formulation is available and on file for the purchaser.

Manufactured by:
UK Div Reg Svcs Feed Mill
103 Regulatory Services Bldg
Lexington, KY 40546

NOTES:
DOES NOT REQUIRE REGISTRATION PRIOR TO SALE PROVIDED THAT FORMULA IS AVAILABLE OR PROVIDED IN ADVANCE TO PURCHASER.
Improved Ag Lime Quality in Kentucky–Dr. Frank Sikora

Agricultural lime application is needed for crop production in Kentucky to increase soil pH between 6 and 7 which removes aluminum toxicity and optimizes nutrient availability. The quality of ag lime sold from quarries throughout the state is assessed twice a year by the Kentucky Department of Agriculture. Ag lime quality is controlled by chemical and physical characteristics. The important chemical characteristic is the amount of calcium carbonate equivalence in the lime. Carbonate is the active ingredient that neutralizes soil acidity. The important physical characteristic is the particle size of the ag lime. Lime with very fine particle size has a greater reactivity in neutralizing soil acidity. Both the chemical and physical characteristics are used to determine a percent relative neutralizing value (RNV). Ag lime with 100% RNV is optimum. Ag lime products with RNV less than 100% require greater application rates to achieve the same results as using 100% RNV ag lime. For example, 4 tons/acre of 50% RNV ag lime would have to be applied to achieve the same result as 2 tons/acre of 100% RNV ag lime.

Prior to July of 2007, soil test reports from the University of Kentucky soil test laboratory provided lime recommendations based on soil pH assuming ag lime had a 67% RNV. This was a poor assumption. The spring 2007 lime report from the Kentucky Department of Agriculture showed a wide variation in ag lime throughout the state. The average RNV was 57% which was lower than the assumed average of 67% and the variability was great. From a total of 52 quarries, 22 of them had RNV less than 50% and 11 of them had RNV greater than 70%.

A better approach at making lime recommendations on soil test reports was initiated in July 2007 by providing the amount of ag lime needed if the RNV was 100%. The amount of actual lime needed depends on the actual RNV of the ag lime used. For soil test reports from the University of Kentucky soil test laboratory, recommended application rates of ag lime from specific quarries are provided for producers within a county. Less lime is recommended from quarries selling ag lime with higher RNV. This change in making lime recommendations has provided awareness on ag lime quality. Ag lime quality was no longer treated as the same throughout the state.

The increased awareness of the variability of ag lime quality and its effect on lime application rates has had a positive impact in improving quality of ag lime in Kentucky. In spring of 2007, 32% of quarries had ag lime with an RNV greater than 60%. The number of quarries with ag lime greater than 60% RNV has increased steadily since July of 2007 (see Figure). The current percent of quarries with RNV greater than 60% is twice the amount in spring 2007.

The Division of Regulatory Services works cooperatively with the Kentucky Department of Agriculture in providing ag lime results on the internet and reporting quarry-specific lime recommendations on soil test reports. If you are interested in the quality of ag lime in your area, you can review the most recent and archived reports at http://soils.rs.uky.edu/technical_Info/.
Inspector News- Jim True

The inspectors started 2013 by spending January collecting canned pet food for the lab to analyze and working on registration for canned pet food products. January and February were also spent collecting regular feed samples for the livestock sector of our business.

In March the inspectors started sampling seed and fertilizer and the last 60 days have been extremely busy collecting custom mix samples across the state. As I sit here the first week of May, there are still some areas of the state where the inspectors still have some fertilizer to sample while other areas have provided large numbers of samples. Seed sampling has been good this spring and the inspectors have been able to sample small package products from lawn and garden centers during the breaks for wet weather.

Nathan Keith, our newest inspector from Pulaski county attended the Basic Inspector Training in Baton Rouge, LA the week of April 8-12. This 3 day training was conducted jointly by the American Association of Feed Control Officials, the American Association of Plant Food Control Officials, and the American Association of Seed Control Officials. One day was spent on each of the three programs where the inspectors were trained on the basic knowledge required for feed, fertilizer, and seed sampling and inspection.

Bart Young recently attended (VM 101) Grain and Feed Mill Operations, held in Raleigh, NC from April 29-May 3. This training was sponsored by FDA, Iowa State, Kansas State, and NC State Universities. Its objective was to teach inspectors how a feed mill and its equipment work. This covered from receiving ingredients in, storage, processing, mixing, and producing finished products.

There will be an Advanced Inspector Training conducted by the American Association of Feed Control Officials in Wilmington, NC the week of June 18-21. This 3 day meeting will focus on the inspection, sampling, labeling, and regulations of the feed industry. The inspectors from our division and I will be attending this training.

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.