Regulatory Services News

Feed – Fertilizer – Milk – Seed – Seed Testing – Soil Testing

Third Quarter 2003

Additions to Regulatory Services Inspection Staff

Jesse Whitehouse

Specialty Products Inspector

Jesse Whitehouse has joined the Division of Regulatory Services as a Regulatory Specialist Associate. As a specialty products inspector, he will be conducting statewide inspection of specialty products under the feed, fertilizer and seed laws

continued on pg. 2

Louisville Area Inspector

Melody McDonough joined the Division of Regulatory Services as a full time Inspector in the Louisville Area on June 9, 2003. Melody will be conducting Feed, Fertilizer, Seed and Milk Handler inspections within her area.

Melody is a graduate of Eastern

continued on pg. 2

Melody McDonough

What's inside....

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Division of Regulatory Services

Whitehouse, continued from front page

and will work out of the Lexington office.

Jesse retired from Southern States Cooperative after 33 years of service. While with Southern States, Jesse was a Store Manager, District Manager, and for the past 10 years a Senior Agronomist. Jesse's experience and qualifications will definitely be an asset for our Division.

McDonough, continued from front page

Kentucky University and the University of Kentucky.

Melodys' background consists with working with the Ohio Farm Bureau, Vocational Agriculture Teacher in Ohio and Kentucky, and Sales Manager with Griffin Industries. We welcome Melody to the Division of Regulatory Services

S. McMurry -- Inspection Program

Division of Regulatory Services Inspection Program

The primary goal of the Inspection Program is to achieve industry compliance with the consumer protection laws. This responsibility is carried out by inspectors strategically located throughout the state.

The field staff work in the areas of feed, fertilizer, milk and seed, inspecting manufacturing plants, processing facilities, storage warehouses and retail stores. Inspector activities include collecting official samples, reviewing records and offering advice and assistance to clientele to help improve their operations to achieve compliance.

A state map with each inspector and their respective county assignments can be found on the Division's webpage: www.rs.uky.edu/insp.

Seed Lab Adds Another Certified Germination Analyst

Beth Nichol became a Certified Germination Analyst this summer. She was awarded the certification by the Association of Official Seed Analysts after completing a rigorous written exam and practical evaluation to demonstrate her abilities at the Arkansas State Plant Board in Little Rock, Arkansas.

Beth has been working for the University of Kentucky in the seed program for nearly nine years and has been a germination analyst for the last four years.

The UK Seed Lab now has four AOSA Certified Germination Analysts and three Certified Purity Analysts.

Beth Nichol

C. Finneseth -- Seed Testing Program

Inspection Staff Service Awards

David Mason and Brad Johnston were recognized in July at the annual inspectors' meeting for years of service to the University of Kentucky College of Agriculture. Eli Miller, Director of Regulatory Services, presented both inspectors with pins and noted their service and contributions to the Division. The inspectors are pictured at right with Miller and David Terry, Assistant Director.

David Mason, Eli Miller, Brad Johnston and David Terry (l to r).

Mason, recognized for 15 years of service, conducts feed, fertilizer, milk and seed inspections at firms located in the Licking River and Northeast areas of the state.

Johnston, recognized for five years of service, conducts inspections at locations in the Mammoth Cave and Barren River territories.

S. McMurry -- Inspection Program

Variety Labeling of Seed in Kentucky

The Kentucky Seed law requires a variety statement for most seed kinds. This statement can either be the legitimate variety name of the seed or if the variety is not known, the statement "Variety Unknown." All soybean seed except black soybeans can be labeled by variety name only. Tobacco and canola seed must be certified in Kentucky. Certification of seed documents and guarantees varietal purity. All certified seed is required to be labeled as to variety.

Labeling by variety is very important to the seed consumer. When a variety is released to the public, the plant breeder who developed the variety also describes the variety. This is called a variety description. The variety description defines the characteristics of the variety. These descriptions provide the consumer with valuable information about the variety. This information can include distinct plant characteristics such as flower color, pubescence, plant height, days to maturity, yield characteristics, tolerance to drought and disease, chemical tolerance and other characteristics, which are very important to the seed consumer.

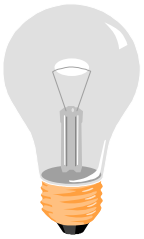
Seed kinds labeled as "variety unknown" are exactly what the statement implies. The seed labeler is declaring that no information as to the characteristics of the seed are known. We commonly see wheat and a small amount of rye offered for sale during the fall season under the variety statement "variety unknown." Wheat is commonly used as a cover crop in Kentucky. The seedsman guarantees the

Continued on pg. 11

Fertilizer Labeling Tips
How to Succeed in Drafting an Acceptable Fertilizer Label

This is the second in a series of "How To" labeling tips. In the last issue of Regulatory Services News (http://www.rs.uky.edu/news/) the following topics were covered:

1. The Guaranteed Analysis
2. Form of Nitrogen Guarantees
3. The Grade
4. Guaranteeing plant nutrients in addition to N, P, or K
5. Maximum Chlorine Guarantee for Tobacco Fertilizers



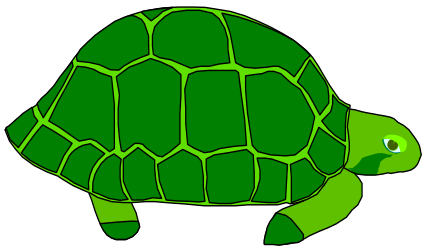
The topic for this issue is:

How to Label Fertilizers with Slow Release Claims - Organics

"The Kentucky Fertilizer Law is basically a 'Labeling' law. Most all other requirements of the law flow from the label. ***It must be clear****.* ***It must be accurate****.* ***It must follow a very specific format****. Here are a few tips on how to do it!"*

Remember:
The term "labeling" means all written, printed, or graphic matter, upon or accompanying any fertilizer, or advertisements, brochures, posters, television and radio announcements used in promoting the sale of such fertilizer. [AAPFCO Model Fertilizer Bill Section 4. (o)]

Slow Release Claims
When fertilizer *labeling* infers or connotes that the plant nutrients are slowly available or long lasting, the guaranteed analysis must indicate which they are and the percentage of each. Labeling statements deemed to be slow release claims include but are not limited to the following:



water insoluble
coated slow release
occluded slow release
organic or organic based
timed release
controlled release
slow release
slowly available
slowly available water soluble
long lasting
lasts all season
lasts X months

or any other similar term that implies that the nutrients are released from an unavailable form to an available form at a slower rate than a water soluble fertilizer.

The key point in identifying a slow release fertilizer claim is: the nutrient in the fertilizer is initially not in a form that the plant can utilize but over time the nutrient becomes available for absorption by the plant; and, the time involved where the "unavailable" nutrient becomes "available" is significantly longer than a nutrient in a readily water soluble compound.

Continued on pg. 13

FDA Proposes Biosecurity Regulations and Guidance Document for the Dairy Industry

Everyone involved in today's dairy industry is keenly aware of the impact that biosecurity has on our day to day activities. As producers, processors and transporters, we have had to examine our operations from a different perspective in recent years. That perspective is one that most of us thought of as unimaginable in years past: "How can we protect our milk supply from those who would intentionally vandalize or tamper with it?"

The events of September 11, 2001 elevated our awareness and placed a renewed emphasis on our efforts to protect our food supply. Congress responded by passing the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (the Bioterrorism Act), which President Bush signed into law June 12, 2002. This Act launched the FDA's efforts to develop provisions regarding the safety of our nation's food supply.

In the 2003 1st Quarter issue of Regulatory Services News, you were informed of proposed regulations issued by FDA regarding the registration of food facilities and requirements for prior notice of food imports. In May, the last two of four proposed regulations that the Biosecurity Act called upon the FDA to develop regarding food safety were published. These proposals deal with establishing and maintaining records among food firms (Section 306) and the administrative detention of foods that may pose a risk to public health (Section 303). Each of these proposals should be of interest to many organizations and individuals involved in the dairy industry, particularly processors and transporters. Copies of these proposals, as well as other related information, can be viewed on the FDA Bioterrorism Act web page at http://www.fda.gov/oc/bioterrorism/bioact.html

Additionally, a guidance document for the dairy industry regarding food security preventative measures was released in July. The guidance document does not establish legally enforceable responsibilities. It represents FDA's current philosophies regarding measures that should be implemented by the dairy industry to help ensure a safe milk supply. The guidance document is included in this newsletter (following, through page 7) to help provide the dairy industry with recommendations to improve the security of our nation's milk supply.

Web links to the guidance document and to the FDA's Bioterrorism Act web page can be found at Regulatory Services' web site under "Milk" "Current Issues" at www.rs.uky.edu.

C. Thompson -- Milk Regulatory Program

Guidance for Industry

DAIRY FARMS, BULK MILK TRANSPORTERS
BULK MILK TRANSFER STATIONS
AND FLUID MILK PROCESSORS
Food Security Preventive Measures Guidance

FINAL GUIDANCE

Comments regarding this document may be submitted at any time to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Submit electronic comments to http://www.fda.gov/dockets/ecomments. For questions regarding this document, contact John Kvenberg, Office of Compliance, HFS-600, Center for Food Safety and Applied Nutrition (CFSAN), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, 301-436-2359, e-mail: jkvenberg@cfsan.fda.gov or Donald W. Kraemer, Office of Seafood (HFS-400), Center for Food Safety and Applied Nutrition (CFSAN), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, 301-436-2300, e-mail: dkraemer@cfsan.fda.gov.

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Food Safety and Applied Nutrition
July 2003

Continued on pg. 6

Guidance for Industry
DAIRY FARMS, BULK MILK TRANSPORTERS, BULK MILK TRANSFER STATIONS AND FLUID MILK PROCESSORS
Food Security Preventive Measures Guidance

This guidance represents FDA's current thinking on the kinds of measures that operators of dairy farms, bulk milk transportation operations, bulk milk transfer stations, and fluid milk processing facilities may take to minimize the risk that fluid milk under their control will be subject to tampering or other malicious, criminal, or terrorist actions. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. If you want to discuss an alternative approach, contact the FDA staff responsible for implementing this guidance. If you cannot identify the appropriate FDA staff, call the telephone number listed on the title page of this guidance.

Purpose, Scope and Limitations:

This guidance is designed as an aid to operators of dairy farms, bulk milk transportation operations, bulk milk transfer stations and fluid milk processing facilities. It identifies the kinds of preventive measures operators of these establishments may take to minimize the risk that fluid milk under their control will be subject to tampering or other malicious, criminal, or terrorist actions. Operators of these establishments are encouraged to review their current procedures and controls in light of the potential for tampering or other malicious, criminal, or terrorist actions and make appropriate improvements.

FDA's guidance documents, including this guidance, do not establish legally enforceable responsibilities. Instead guidances describe the Agency's current thinking on a topic and should be viewed only as recommendations, unless specific regulatory or statutory requirements are cited. The use of the word *should in Agency guidances means that something is suggested or recommended, but not required.*

Not all of the guidance contained in this document may be appropriate or practical for every dairy farm, bulk milk transportation operation, bulk milk transfer station, or fluid milk processing facility. FDA recommends that operators of these establishments review the guidance in each section that relates to a component of their operation, and assess which preventive measures are suitable. FDA further recommends that operators consider the goal of the preventive measure, assess whether the goal is relevant to their operation, and, if it is, design an approach that is both efficient and effective to accomplish the goal under their conditions of operation.

Additional food security guidance that may also be applicable to operators of these establishments is contained in an FDA guidance document entitled, "Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance." This document is available at http://www.cfsan.fda.gov/~dms/secguid6.html.

Management
FDA recommends that operators of dairy farms, bulk milk transportation operations, bulk milk transfer stations and fluid milk processing facilities consider:

- Conducting an initial assessment of the adequacy of food security procedures and operations, which we recommend be kept confidential.
- Developing a security management strategy to prepare for and respond to tampering and other malicious, criminal or terrorist actions, both threats and actual events, including identifying, segregating and securing affected product.
- Developing a product recall strategy
- Providing training in food security awareness to encourage all staff to be alert to any signs of tampering or other malicious, criminal or terrorist actions or areas that may be vulnerable to such actions, and report any findings to management. The training may also encourage staff to be alert to the presence of unidentified or unknown individuals or individuals that are in areas to which they are not designated access, and to directly question such individuals or report them to management
- Providing appropriate supervision to all staff with access to raw and pasteurized milk storage, vitamin supplement receiving and storage, and milk processing and packaging areas of the facility, including cleaning, maintenance and quality control staff, seasonal, temporary, contract, and volunteer staff, and especially, new staff. The supervision may include watching for unusual or suspicious behavior by staff (e.g., staff who, without an identifiable purpose, stay unusually late after the end of their shift, arrive unusually early, access files/information/areas of the facility outside of the areas of their responsibility; remove documents from the facility; ask questions on sensitive subjects; bring cameras to work)
- Conducting routine security checks of the raw and pasteurized milk storage, vitamin supplement receiving and storage, and milk processing and packaging areas of the facility, for signs of tampering or malicious, criminal or terrorist actions or areas that may be vulnerable to such actions.
- Alerting appropriate law enforcement and public health authorities about any threats of or suspected tampering or other malicious, criminal or terrorist actions. FDA may be contacted through its 24-hour emergency number, 301-443-1240, or through a local FDA District Office. FDA District Office telephone numbers are listed at: http://www.fda.gov/ora/inspect_ref/iom/iomoradir.html.
- Reviewing, at least annually, the effectiveness of the food security plan, using knowledgeable in-house or third party staff, and revising the program accordingly, which we recommend be kept confidential.

Human element
FDA recommends that operators of dairy farms, bulk milk transportation operations, bulk milk transfer stations and fluid milk processing facilities consider:

- Obtaining and verifying work references, addresses and phone numbers of all staff with access to raw and pasteurized milk storage, vitamin supplement receiving and storage, and milk processing and packaging areas of the facility, including cleaning, maintenance and quality control staff, seasonal, temporary, contract, and volunteer staff.
- Having a criminal background check performed by local law enforcement or by a contract service provider for the above listed staff, except if

such staff are under direct supervision when they access the above listed areas.

- Limiting access to raw and pasteurized milk storage, vitamin supplement receiving and storage, and milk processing and packaging areas of the facility to those staff that need to enter because of their job functions and only during appropriate work hours.
- Preventing staff from bringing personal items (e.g., lunch containers, purses) into raw and pasteurized milk storage, vitamin supplement receiving and storage, and milk processing and packaging areas of the facility.
- Being alert for atypical staff health conditions that staff may voluntarily report and absences that could be an early indicator of tampering or other malicious, criminal or terrorist actions (e.g., an unusual number of staff who work in the same part of the facility reporting similar symptoms within a short time frame), and reporting such conditions to local health authorities
- Accompanying all visitors.

Facility

FDA recommends that operators of dairy farms, bulk milk transportation operations, bulk milk transfer stations and fluid milk processing facilities consider:

- Securing doors (including freight loading doors, when not in use and not being monitored, and emergency exits), windows, roof openings/ hatches, vent openings, ventilation systems, utility rooms, loft areas, trailer bodies, tanker trucks, and bulk storage tanks, to the extent possible.
- Inspecting bulk unloading equipment and pumps in the receiving area before use.
- Monitoring the security of the premises.

FDA further recommends that operators of dairy farms consider:

- Locking or sealing, with serially numbered seals, all entrances to the milk house or all entry ports on the bulk milk tank from the time the bulk milk tank is washed until the time it is emptied, except when it is under direct, visual supervision (Remember to first make arrangements with the State regulatory agency that will ensure that the regulatory agency, rating agency and FDA continue to have ready access to the milk house and milking operation for routine inspections, Grade "A" IMS ratings and FDA check ratings, when applicable).

Operations

Vitamin supplements and laboratory supplies

FDA recommends that operators of fluid milk processing facilities consider:

- Using only known, appropriately licensed or permitted (where applicable) sources for vitamin supplements.
- Establishing delivery schedules for vitamin supplements, not accepting unexplained, unscheduled deliveries or drivers, and investigating delayed or missed shipments.
- Supervising off-loading of incoming vitamin supplements, laboratory reagents and positive controls, including off-hour deliveries.
- Reconciling the product and amount received with the product and amount ordered and the product and amount listed on the invoice and shipping documents.
- Investigating shipping documents with suspicious alterations.
- Inspecting incoming vitamin supplements for signs of tampering, contamination or damage (e.g., abnormal powders, liquids, stains, or odors, evidence of resealing) or "counterfeiting" (e.g., inappropriate or mismatched product identity, labeling, product lot coding or specifications).
- Storing vitamin supplements, laboratory reagents, and positive controls in a secure location.
- Keep track of vitamin supplements, laboratory reagents and positive controls and investigating any missing or extra stock outside a predetermined normal range of variability.

Labeling

FDA recommends that operators of fluid milk processing facilities consider:

- Storing product labels in a secure location and destroying outdated or discarded labels

Raw milk

FDA recommends that operators of bulk milk transfer stations and fluid milk processing facilities consider:

- Accepting only those incoming tanker loads of raw milk for which all openings were either locked or sealed, with a serially numbered seal, from the time the tanker was last washed until the load is delivered. Exception may be provided for incoming loads for which a thorough investigation demonstrates that there is a verified, reasonable explanation for a deviation. Seals or locks need not be in place during those times that the tanker was under the direct, visual supervision of the driver.
- Using only known, reputable transportation companies
- Establishing delivery schedules for raw milk, not accepting unexplained, unscheduled deliveries or drivers, and investigating delayed or missed shipments. We recommend that driver identification include the name of the transportation company.
- Supervising off-loading of incoming milk.
- Reconciling the amount received with the amount listed on the shipping documents.
- Verifying that operators of bulk milk transfer stations that supply raw milk adhere to the preventive measures listed in this guidance.

FDA recommends that operators of bulk milk transportation operations consider:

- Locking or sealing, with a serially numbered seals, every tanker from the time it is last washed until the time the load of milk is delivered to the bulk milk transfer station or fluid milk processing facility. Seals or locks need not be in place during those times that the tanker is under the direct, visual supervision of the driver.

Stop Sale Procedure for Feed Regulatory Program

Regulatory inspectors annually obtain 4,000 feed samples to monitor products sold in Kentucky. These samples are submitted to the Regulatory Services Laboratory for testing. Upon receiving a sample, the laboratory assigns it a permanent official number. The sample is then prepared for testing which is a critical step since analyses performed are only as accurate as the sample tested.

Specific sample preparation procedures developed and refined through the years are followed to ensure that a representative sample is provided to the chemist performing the test. Given the small amount of sample actually tested, the accuracy achieved in measuring nutrient and drug levels is remarkable. Throughout its history, the Regulatory Services Laboratory has been recognized for the accuracy of its analytical results. Industry confidence in our findings is an essential component for an effective regulatory program.

Feeds that are found in violation of a label guarantee are always retested before a final report is issued. Retests are conducted on a separate sub-portion of the original ground sample to assure the accuracy of the reported test values. If duplicate test results confirm the component is not present in the feed as guaranteed, then a stop sale is issued. Stop sales are issued for two principle purposes:

1. Withdrawal: This is to notify the manufacturer and/or distributor where the feed was sampled to discontinue distribution of any remaining inventory. The feed law requires distributors to obtain a written release of stop sales. To facilitate disposition of violative feeds, the stop sale notice also constitutes a written release for the manufacturer to relabel, reprocess, or otherwise dispose of the feed in a manner consistent with its quality. Feeds adulterated with poisonous or deleterious substances are not similarly prereleased.

   Feed manufacturers differ in their approach to disposing of violative products. Some prefer to relabel while others want to return the product for reprocessing. For this reason, the manufacturer has the primary responsibility to work out appropriate disposition with those involved. The manufacturer and dealer must report the disposition of the feed placed under stop sale. Manufacturers and dealers failing to provide proper disposition and notification violate the Prohibited Acts provision of the Kentucky Commercial Feed Law, which could result in a fine and jeopardize future opportunity for simultaneous release.

2. Prevention: The second function of the stop sale is to communicate to the manufacturer that a problem existed with the feed and to request an investigation to determine the possible cause, corrective action and steps to prevent future discrepancies. An investigational report is provided the manufacturer with a request to review several areas including production records, yield, labeling, drug use, conclusion of probable cause and to report corrective actions and future follow-up. Experience indicates this process can reduce or eliminate repeat violations resulting in all future production being accurately labeled.

Continued on pg. 9

Seed Inspection Report Correction

Thorp Seed Company of Clinton, Illinois was incorrectly listed as the Seedsman for violations listed on page 38 and page 39 of the Seed Inspection Report-1998-2002.

Turner Seed Company of Lavergne, Tennessee is the correct seedsman for all violations listed under Thorp Seed with the exception of VNS/8420999h-3983RR Brand Yellow Soybeans, Lot 368BO4, which is a Thorp Seed Violation. We regret the error.

Feed Stop Sales, continued from page 8

This information is intended to provide manufacturers and dealers with a better understanding of the stop sale process and the purpose for which they are issued. We understand stop sales create some inconvenience especially for dealers that have to hold, exchange or relabel product. The conditional pre-release of products placed under stop sale permits dealers and manufacturers to quickly work out appropriate disposition and eliminates the necessity of requesting and receiving a written release from the Feed Coordinator prior to disposing of the feed. This process requires the understanding and cooperation of all parties to carryout their responsibility in the stop sale process.

S. Traylor --Feed Regulatory Program

Regulatory Services Personnel Visit Texas State Chemist Lab

After attending the ASFFPCO (Association of Southern Feed, Fertilizer and Pesticide Control Officials) annual meeting in Ft Worth Texas, Eli Miller, Melton Bryant and James Bartos went to College Station to tour the Office of Texas State Chemist laboratory. The Office of Texas State Chemist has a national reputation for excellence in the field of Feed and Fertilizer testing. Useful information was obtained regarding their sample splitting and preparation procedures and equipment. Also, their LIMS (Laboratory Information Management System or data processing program), and their processing of specialty tests – including Selenium in feeds and Mercury in fertilizers were reviewed. We also toured the lab where microscopes used for feed microscopy were located.

Making contacts with our counterparts in other states and sharing ideas helps strengthen the quality of our analytical and data processing systems used for Kentucky's regulatory program. The systems used in the labs and the collection, shipment and custody of materials are all important to providing excellent analytical results for each sample material.

M. Bryant -- Feed/Fertilizer Laboratory

Feed Sample Preparation

Submitting Seed Samples to the Service Testing Lab

The analysis you receive from the seed laboratory is based on the sample you submit. Therefore, to evaluate the true quality of a seed lot, certain considerations must be made in advance to ensure a representative sample is submitted.

Sampling Procedures

When sampling seed (regardless of the container size), use an appropriate probe when possible. Hand sampling is acceptable if the result is representative of the lot. Sub-samples of bulk seed should be taken in equal portions at several evenly distributed locations in the container. For bagged seed, a minimum of 5 bags should be sampled, up to a maximum of 5% of the total number of bags or 30 bags, whichever comes first. Once the sample is obtained it can be mixed and divided down to desired testing weight.

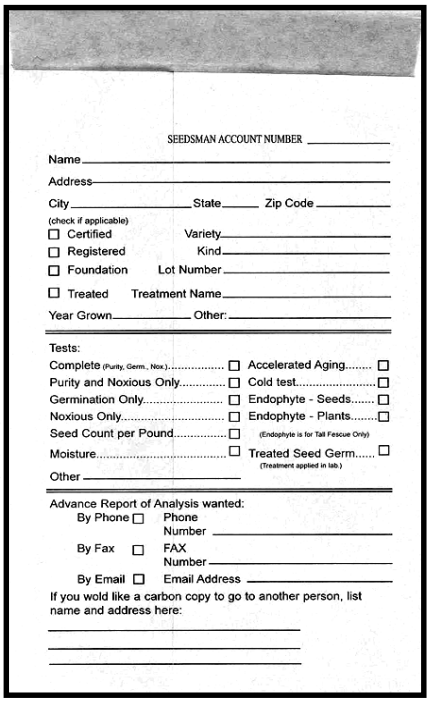
Amount to Submit

To run a complete test (purity + germination) we need a minimum amount of seed, especially if a retest is necessary. Please use the guidelines below to determine the amount of seed you need to send.

Seed Size	Quantity
Cereals	2 lbs.
Corn and Soybeans	2 lbs.
Small-seed Legumes and Chaffy Grasses	1/2 lb.
Sorghum	1 lb.

Packaging Samples

When sending samples via mail, UPS or other service, please take time to make sure the sample is properly packed. Bags of seed should be packed tightly in a box using packing material like newspaper or styrofoam peanuts to prevent shifting during transport. Bags that move around can rip open in the box, meaning the samples could get mixed and would have to be re-submitted for testing.



SEEDSMAN ACCOUNT NUMBER _____

Name _____

Address _____

City _____ State _____ Zip Code _____

(check if applicable)

☐ Certified Variety _____

☐ Registered Kind _____

☐ Foundation Lot Number _____

☐ Treated Treatment Name _____

Year Grown _____ Other: _____

Tests:

Complete (Purity, Germ., Nox.)..... ☐ Accelerated Aging..... ☐

Purity and Noxious Only..... ☐ Cold test..... ☐

Germination Only..... ☐ Endophyte - Seeds..... ☐

Noxious Only..... ☐ Endophyte - Plants..... ☐

Seed Count per Pound..... ☐ (Endophyte is for Tall Fescue Only)

Moisture..... ☐ Treated Seed Germ..... ☐ (Treatment applied in lab.)

Other _____

Advance Report of Analysis wanted:

By Phone ☐ Phone Number _____

By Fax ☐ FAX Number _____

By Email ☐ Email Address _____

If you wold like a carbon copy to go to another person, list name and address here:

_____

_____

_____

Seed can be mailed in our pre-printed bags. Once sealed, these can be sent individually through the postal service. These sample bags are available from our lab.

Information Needed

The information we need to properly identify your sample and complete our records includes:

- Your name and complete mailing address
- Variety, Kind and Lot number
- Certified, Registered or Foundation status, if applicable
- Seed treatment, if applicable
- Year Grown (important for pre-chilled crops)
- Tests requested

To ask questions about submitting seed, tests offered or to request sample bags, please call the seed lab at (859) 257-2785 or email a request to seedlab@rs.uky.edu.

C. Finneseth -- Seed Testing Program

Varietal Labeling, continued from pg. 3

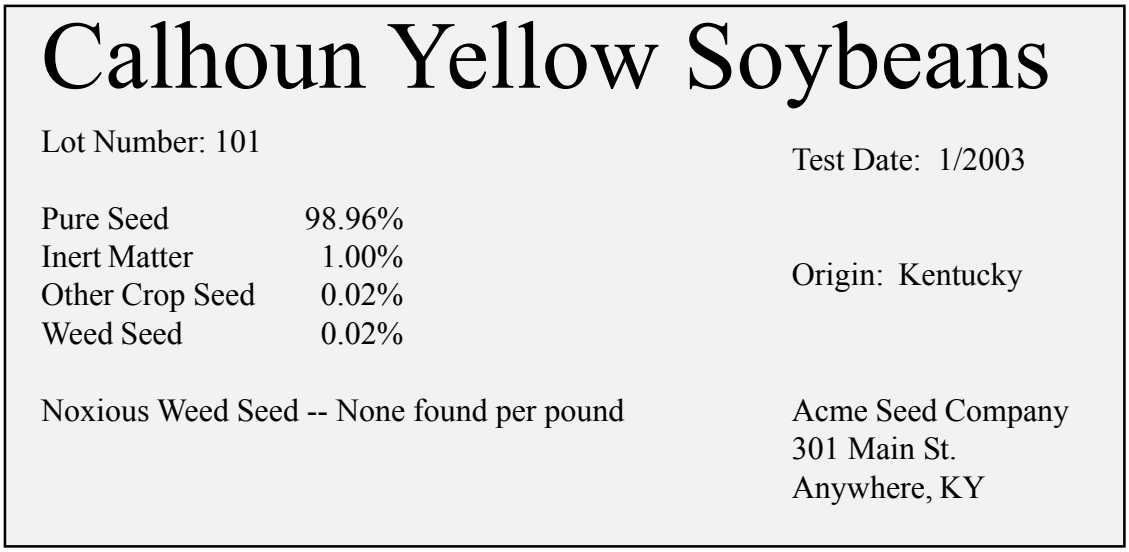
purity and germination of the wheat but no variety name is provided. Its suitability as a crop for grain production is unknown because variety information is not known.

Another labeling approach we have observed during the last two years has been to label the product as a brand or as a product number without providing a variety statement. This is a violation of the Kentucky Seed Law and these products have had stop sale orders placed on them until they were labeled as to variety or removed from Kentucky. During one of these actions, the seedsman asked me how we kept our farmers from finding out what the variety was. My response was that our law required that the farmer be able to determine what the variety was by looking at the seed tag. The reason I was asked such a question deserves an explanation.

Some seed companies breed varieties and sell the right to market those varieties to other seedsmen. These varieties are legitimately sold by their proper variety name. Some companies want to take this process one step further. They want to sell the right to market the variety to other seedsmen with the stipulation that they cannot market the variety by its legal variety name, but the purchaser can sell the seed by a brand name and declare the variety to be "not stated." This approach is legal in a number of states. The originator of the variety sells the variety by its legitimate variety name and sells the right to others to market the same variety by a brand name without declaring the variety. A grower would have the option of buying the legitimately named variety from the original owner or choose to buy another company's brand, not knowing what the variety was and very possibly buy the same variety. In those states where this process is legal, different companies are selling the same variety by a number of different brand names and declaring the variety as "not stated."

The Kentucky Seed Law prohibits this practice. We believe the purchaser has the right to know the legitimate variety name. Our law does not prohibit the practice of the seedsman placing a brand name or a product number on the seed tag, but the seedsman must also declare the variety. This provides the purchaser with the opportunity to purchase the product with full knowledge of what the variety is.

D. Buckingham -- Seed Regulatory Program



Sample Seed Tag. Note: A variety, not a brand, is required on seed sold in Kentucky.

Analytical Feed, Fertilizer and Soil Analysis Improvements

The labs have replaced old equipment this year to improve productivity and efficiency. The analytical support for service and regulatory programs will also be enhanced.

A 12-year-old elemental analyzer was replaced with a new Varian elemental analyzer. The new instrument will be used for soil analysis and can be used to perform feed and fertilizer analysis on a backup basis.

Two old fiber extractor systems that required weekly repair have been replaced this year. The solvent leaks and electrical failures were causing problems on a continuing basis. The new units are safer and more reliable.

The spectroscopy lab obtained a new analyzer for measuring selenium in feeds and premixes. This will be a new capability for the lab. This system can also be used to measure the amount of mercury that a fertilizer contains. Mercury is a contaminant that should not be present in fertilizer. The lab has been monitoring fertilizer materials for several years to determine if these products contain significant contamination.

Microscopy is used to monitor ingredients in feed. The lab added a new microscope with a digital camera to record these observations. This capability will assist the feed program by providing visual communication of findings to the field inspectors and feed manufacturers and distributors. This unit can also be used for photographing other materials such as fertilizers and fertilizer ingredients, feeds, and reference ingredients for feed.

The lab improved the storage facilities for feeds after they have been prepared for analysis. The materials are refrigerated to prevent spoiling and degradation of the samples.

The lab implemented a new flame photometer detector on the automated flow analyzer. This unit measures potassium in fertilizers. Most fertilizers were analyzed using this system during our spring season. This allowed both potash and phosphorus determinations with one instrument.

These systems will improve the support for the regulatory and service programs. More accurate data and better documentation of the lab findings enhances our laboratory. Adding new analytical methods enhances our understanding of the products that are monitored by the programs.

J. Bartos -- Feed/Fertilizer Laboratory

Division of Regulatory Services Website

Be sure to check the Division's website (www.rs.uky.edu) often for program information. Each regulatory and service program has information listed on the site including upcoming meetings, testing procedures, current topic information, regulatory reports and forms as well as other items of interest.

Fertilizer Labeling, continued from pg. 4

The AAPFCO definition for "Slow or Controlled Release Fertilizer follows:

T-29. Slow or controlled release Fertilizer - A fertilizer containing a plant nutrient in a form which delays its availability for plant uptake and use after application, or which extends its availability to the plant significantly longer than a reference "rapidly available nutrient fertilizer" such as ammonium nitrate or urea, ammonium phosphate, or potassium chloride. Such delay of initial availability or extended time of continued availability may occur by a variety of mechanisms. These include controlled water solubility of the material (by semi-permeable coatings, occlusion, or by inherent water insolubility of polymers, natural nitrogenous organics, protein materials, or other chemical forms), by slow hydrolysis of water soluble low molecular weight compounds, or by other unknown means. (Official 1985)

How to Label a Fertilizer with a Slow Release Nutrient Claim

While any nutrient may be claimed to be slow release, nitrogen is the most common and will be used in the example.

(A) ***The Classic All 'Organic' Nitrogen Claim***

The claim: "All Organic Nitrogen Fertilizer 5-10-10"

Rule that applies:

AAPFCO Rule 9: *If an amount of nitrogen is designated as organic then the water insoluble nitrogen or the slow release nitrogen guarantee must not be less than 60% of the nitrogen so designated. Coated urea shall not be included in meeting the 60% requirement. (Official 1994)*

Note: This is frequently referred to as the '60%' rule.

The Nitrogen Guarantee:

GUARANTEED ANALYSIS	
Total Nitrogen (N)	5%
4% Water Insoluble Nitrogen	
1% Water Soluble Nitrogen	

Comments:

(1) The slow release nitrogen guarantee must not be less than 60% of the Total Nitrogen Guarantee because 'ALL" of the N is claimed to be organic (a slow release claim). The minimum guarantee for the slow release N would be 3% (5% x 0.6 = 3%). The guarantee in the example fertilizer for Water Insoluble Nitrogen (WIN), a slow release guarantee, is 4% which meets this minimum requirement.

(2) When the 'form' of a nutrient is claimed, such as the slow release claim, then the 'forms' of the nutrient must be guaranteed; and, the percentage guarantee for the 'form' must precede the form name. In this example, the guaranteed percentage (4%) of WIN precedes the form name, thus, meeting this requirement.

(3) If the WIN guarantee were less than the 60% requirement (for example 2.5 % WIN), then the claim for 'ALL ORGANIC' would not be allowed.

Continued on pg. 14

Fertilizer Labeling, continued from pg. 13

(B) ***When Only a Portion of the N is Claimed as Slow Release***

The Claim: "This 10-10-10 fertilizer contains soluble nitrogen for quick responseplus slow release nitrogen for extended feeding."

Rule That Applies:

AAPFCO Rule No. 3(a): No fertilizer label shall bear a statement that connotes or implies that certain plant nutrients contained in a fertilizer are released slowly over a period of time, unless the slow release components are identified and guaranteed at a level of at least 15% of the total guarantee for that nutrient(s). (Official 1991)

Note: This is frequently referred to as the '15%' rule.

The Nitrogen Guarantee:

GUARANTEED ANALYSIS	
Total Nitrogen (N)	10%
1.5% Water Insoluble Nitrogen	
8.5% Urea Nitrogen	

Comments:

(1) A slow release nitrogen claim is made but the claim is NOT that ALL the nitrogen is 'organic' as in the first situation. A slow release nitrogen claim is made, therefore, at least 15% of the Total Nitrogen guarantee must be slow release. The Total Nitrogen guarantee is 10%; therefore, at least 1.5% (10% x .15 = 1.5%) of the N must be guaranteed slow release. The 1.5% WIN guarantee in our example meets this requirement.

(2) The format of the breakdown of the forms of N is correct as described above.

(3) If the WIN were less than 1.5% then the claim for 'slow release' nitrogen would NOT be allowed.

(C) Organic Nitrogen Material with both WIN and Water Soluble Slowly Available Claims

The Claim: "This 20-0-0 fertilizer contains both organic water insoluble and slowly available water soluble nitrogen for full season feeding of nitrogen."

The Rule: The only new concept here is the claim for 'slowly available water soluble nitrogen'. The ingredient statement must include an AAPFCO defined fertilizer material that has recognized 'slowly available water soluble nitrogen' fractions. Examples would be methylenediurea (MDU), dimethylenetriurea (DMTU), and urea-triazone solutions. AAPFCO's Statement of Uniform Interpretation and Policy(SUIP) No. 21 outlines the format of the guaranteed nitrogen:

21. Slowly Available Water Soluble Nitrogen - When a fertilizer material or fertilizer mixture contains recognized and determinable forms of water soluble nitrogen with slowly available properties, then the guarantees for those components, if claimed, should be shown as footnotes rather than as a component in the nitrogen breakdown. For example:

SLOW FERTILIZER 20-0-0

GUARANTEED ANALYSIS

Total Nitrogen (N).....20%
8% Urea Nitrogen
2% Other water soluble Nitrogen
2.9% Slowly Available Water Soluble Nitrogen*
7.l% Water Insoluble Nitrogen

____

*Slowly Available Nitrogen from _____.

SLOW FERTILIZER 20-0-0

GUARANTEED ANALYSIS

TotalNitrogen (N).....20%
8% Urea Nitrogen
4.9% Other Water Soluble Nitrogen*
7.1% Water Insoluble Nitrogen

____

* 2.9% Slowly Available Nitrogen from _____.

Note: When other recognized forms of water soluble nitrogens are listed in the N breakdown, then the term "other" must precede the "water soluble nitrogen*" footnoted breakdown. (Official l987) The word "organic" may be used in the nitrogen breakdown where appropriate. (Official 1992)

Comments:

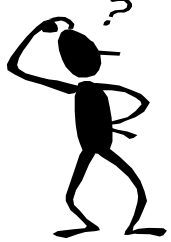
(1) The total slowly available nitrogen in the above example fertilizer is the sum of the WIN and the Slowly Available Water Soluble Nitrogen (SAWS) which is 10% (7.1% WIN + 2.9% SAWS = 10% slowly available nitrogen)

(2) There are two ways of stating the guarantee using a footnote to the forms of nitrogen in the Total Nitrogen breakdown.

(3) The blank in the footnote (_____) will be filled in with the source of SAWS, for example, MDU or DMTU.

(4) Since there was no claim as to proportion of the Total Nitrogen that comes from organic sources, the "15%" rule applies, that is, the slowly available nitrogen must be at least 15% of the Total Nitrogen which the example fertilizer meets.

(5) If there were a claim that the fertilizer was 'ALL ORGANIC', then the '60%' rule would apply and the slow release nitrogen would have to total 60% of the Total Nitrogen guarantee which would be 12% (20% x 0.60 = 12%). The example fertilizer does not meet this criterion and the label would not be acceptable.



Still have questions?

Next time the labeling of coated and occluded products will be discussed.

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