

Regulatory Services News

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

Fourth Quarter 2003

Regulatory Services

The Division of Regulatory Services is an organization that has a mission of consumer protection and service to Kentucky's citizens. The Division's role is to administer four laws the Kentucky legislature has enacted and designated to us for administration and to provide seed and soil testing programs. The following information is to provide a brief insight of some functions the Division performs and the people that comprise our Division:

The administrative agency for the Kentucky Seed Law, Kentucky Commercial Feed Law, Kentucky Fertilizer Law and Kentucky Farm Milk Handlers Law and service testing laboratories for seed and soil. This agency started 117 years ago in 1886 with the enactment of the fertilizer law.

A consumer protection agency for agricultural and consumer products such as feed, fertilizer, dog, cat and specialty pet food as well as grain, lawn and garden seed

Consumer protection for dairy farmers by ensuring that raw farm milk produced and marketed in Kentucky is bought and sold using accurate weights and tests and to provide a fair and equitable market place environment for all producers and processors involved in Kentucky's dairy industry.

A unit of the UK College of Agriculture with facilities located at the UK campus and Princeton Research and Education Center with an annual budget of three million dollars derived from state

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UNIVERSITY
OF KENTUCKY

College of Agriculture
Division of Regulatory Services

Regulatory Services, continued from pg. 1
funding, inspection fees and service testing fees.

Registers 10,000 feed products and 4,000 fertilizer grades for distribution in the state. Tests 4,500 official feed and 4,000 official fertilizer samples annually and conducts various analysis in excess of 40,000 findings.

Seed testing program that analyzes 3,000 official samples per year to support the seed regulatory program and 7,500 service samples to support the Kentucky seed industry and UK research programs. Four analysts in the lab are AOSA-certified in germination and/or purity.

Soil testing program that tests 50,000 samples annually to provide basis for fertilizer and liming recommendations for crops, lawns, gardens, reclamation and other uses and to support UK research programs. The laboratory also tests manure samples and greenhouse solutions for fertilizer recommendations.

Testing expertise in soil, feed, fertilizer and milk chemistry, with leaders at the state and national level and recognized experts in their area of work

61 professional full-time employees dedicated to carrying out programs for the betterment of Kentucky agriculture and urban consumers. This includes 18 administrative and support staff, 10 inspectors, an auditor, 22 chemists, five seed analysts and five data processing and programming staff. Nearly half the Division's employees have a farm background.

Division employees have a total of 1028 years of job related experience for an average of 16.8 years per employee. 20 individuals have a college degree, 17 have masters degrees and five hold Ph.D.s in areas of study related to their job.

47 employees were born in Kentucky and the rest are Kentuckians by choice.

E. Miller -- Director, Regulatory Services

2003 Inspector Training Seminar St. Louis, Missouri

Melody McDonough, Jesse Whitehouse, and Steve McMurry attended the St. Louis Inspector Training Seminar in September. David Terry represented AAPFCO and AOAC at the meeting and David Buckingham gave a presentation on Lawn Turf Relabeling and Test Date Issues. Inspection techniques and procedures were discussed in the fields of feed, seed, and fertilizer inspection. Other topics discussed were stress and time management, personality profiling, confrontation management, and investigative techniques and report writing. Fertilizer practical application training was conducted at Lange Stegmann Fertilizer Co. in St. Louis, MO. Feed training was conducted at Land O'Lakes Feed Mill in Nashville, IL. Fourteen states and representatives from Puerto Rico attended. This type of meeting is essential in promoting uniform labeling and sampling of feed, seed, and fertilizer for consumer and industry protection.

S. McMurry -- Inspection Program

Retirement Announcement: Sue Herald announced her plans to retire from UK in February, 2004. Sue is responsible for evaluation of drugs in feeds and mycotoxins in grains. She is valuable to the feed laboratory and will be missed. The next Regulatory Services newsletter will provide more information on her accomplishments and service to Regulatory Services and the University of Kentucky.

Saving Patented Seed is Not Worth the Risk

Seed patents have been in use for several years at this time. Patents may cover seed germplasm or high value traits such as Roundup Ready, Yieldguard or Bollgard. A patent also protects some conventional seed varieties. Two federal laws govern the use of corn, soybeans, wheat and other seed kinds. These are the Plant Variety Protection Act (PVPA) and U. S. patent law.

The PVPA was amended in 1994. The amended PVPA allows a farmer to save enough of his production of a US protected variety to plant his own acreage only. A farmer can not sell any of these varieties without permission of the owner of the variety. A farmer cannot save or sell any varieties of seed which have traits protected by a US patent.

Illegally saving or selling seed protected by a US patent can cost a grower, a retailer, or a seed cleaner a lot of time and money. There have been a number of court cases challenging the validity of the US patent with regard to a farmer's right to save seed with these protected traits. A summary of the different challenges associated with the roundup tolerance trait will be discussed here.

The argument that PVPA and US patent law conflict with each other and the farmer's right to save seed is protected by the PVPA has been addressed by the US Supreme Court. The ruling determined that plant variety protection under general patent law and plant specific acts like PVPA do not conflict. Both the PVPA and patent law can protect seed for planting, but the saved seed exception of PVPA does not apply to patented traits. A much earlier court decision determined that seed trait technology was patentable.

The argument that the patent protected only the first sale and after the first sale the patent was

exhausted failed. The court ruled that the patent protected the use of the technology that the seed possessed and not the device, in this case the seed, that contained the technology. Challenges that the grower agreement not to save seed was an unreasonable restraint of trade and that the owner of the trait was guilty of being monopolistic also failed.

Another challenge involved the argument that the seed dealer forged the growers signature on the technology agreement and therefore was not subject to the technology agreement. The court ruled that the owner of the trait was not barred from suing for patent infringement even though the grower did not actually sign a technology agreement.

Another creative argument was tried when a grower argued that the soybeans he planted were acquired from another party and he had not saved his seed for planting. The court ruled that both the party selling the soybeans and the grower planting the soybeans were guilty of infringement.

Seed cleaning operations are also prohibited from cleaning seed, which have traits, which are protected by a US patent. Some seed cleaning operations are cleaning soybean seed without requiring the grower to declare what the variety is and sign a statement that the seed he has brought in for cleaning is not a seed with a patented trait. This is not a wise practice as the cleaner becomes liable of infringement also.

Some growers involve themselves in swapping schemes and represent the seed they take to the cleaner as being their seed. This is being done by some to circumvent PVPA. Owners of US protected varieties are also becoming active in protecting their right of ownership.

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

Part III

How to Label Fertilizers with Slow Release Claims-Coated and Occluded Fertilizers

This is the third in a series of "How To" labeling tips. Last time in the 3rd Quarter 2003 issue of the Regulatory Service News (<http://www.rs.uky.edu/news/>) the topic covered was: *Labeling Fertilizers with Slow Release Claims-Organics*.



In this issue we will discuss labeling fertilizers with coated and occluded properties. First the governing regulation, terms, and definitions will be cited as a basis for the labeling requirements. Then, four example labels will be presented and discussed to point out the salient aspects of the labels.

Governing Regulation, Terms and Definitions

The appropriate regulation for the current discussion is shown below:

AAPFCO Regulation (KY's regulation parallel these.):

3. Slowly Released Plant Nutrients.

...

- (b) Types of products with slow release properties recognized are (1) water insoluble, such as natural organics, ureaform materials, urea-formaldehyde products, isobutylidene diurea, oxamide, etc., (2) coated slow release, such as sulfur coated urea and other encapsulated soluble fertilizers, (3) occluded slow release, where fertilizers or fertilizer materials are mixed with waxes, resins, or other inert materials and formed into particles and (4) products containing water soluble nitrogen such as ureaform materials, urea-formaldehyde products, methylenediurea (MDU), dimethylenetriurea (DMTU), dicyanodiamide (DCD), etc. The terms, "water insoluble", "coated slow release", "slow release", "controlled release", "slowly available water soluble", and "occluded slow release" are accepted as descriptive of these products, provided the manufacturer can show a testing program substantiating the claim (testing under guidance of Experiment Station personnel or a recognized reputable researcher acceptable to the _____). A laboratory procedure, acceptable to the _____ for evaluating the release characteristics of the product(s) must also be provided by the manufacturer.

Comments:

1. *This regulation designates the kinds of fertilizers that are recognized as 'slow release'.*
2. *In 3. (b)(1) of the above regulation the water insoluble products are recognized as slow release. (The labeling of these was discussed in last issue.)*
3. *In 3. (b)(2) above the 'coated' products are recognized as 'slowly released'.*
4. *In 3. (b)(3) above the 'occluded' products are recognized as 'slowly released'.*
5. *At this time there is no other official definition of 'occluded slow release' except as described in this regulation.*

Official terms and definitions related to coated products that are based on this regulation are as follows:

T-21. Coated Slow Release Fertilizer - A product containing sources of water soluble nutrients, release of which in the soil is controlled by a coating applied to the fertilizer.

T-32. Polymer Coated Fertilizer - is a coated slow release fertilizer consisting of fertilizer particles coated with a polymer (plastic) resin. It is a source of slowly available plant nutrient(s).

N-27. Sulfur Coated Urea (SCU) - is a coated slow release fertilizer consisting of urea particles coated with sulfur. The product is usually further coated with a sealant (2% to 3% of total weight) and a conditioner (2% to 3% of total weight). It typically contains about thirty percent (30%) to forty percent (40%) nitrogen and about ten percent (10%) to thirty percent (30%) sulfur.

N-32. Polymer Coated Urea (PCU) is a coated slow release fertilizer consisting of urea particles coated with a polymer (plastic) resin. It typically contains about forty percent (40%) nitrogen. It is a source of slowly available nitrogen.

Comments:

1. *None of the slowly released nutrients designated as 'coated' or 'occluded' can be designated as 'water insoluble'. An exception would be if the fertilizer that is 'coated' or 'occluded' is itself 'water insoluble'.*
2. *The terms T-21 and T-32 are technical terms that describe in general how the fertilizers are rendered 'slowly released'.*
3. *The definitions N-27 and N-32 are specific to how the nitrogen compound, urea, is coated to impart its 'slowly released' properties.*

Example Labels for Coated and Occluded Fertilizers

The following four examples demonstrate how fertilizers with coated and occluded properties are labeled.

Example 1:

A fertilizer with one coated material:

| Fertkote 10-15-20 | | |
|--|--|-----|
| Guaranteed Analysis | | |
| Total Nitrogen (N) | | 10% |
| 2.5% Ammoniacal nitrogen | | |
| 2.5% Nitrate nitrogen | | |
| 5.0% Urea nitrogen* | | |
| Available Phosphate (P ₂ O ₅) | | 15% |
| Soluble Potash (K ₂ O) | | 20% |
| Sulfur (S) | | 14% |
| *4% Slowly available urea nitrogen from sulfur coated urea | | |

Comments:

1. *This shows the guarantee for the 'slowly released' nitrogen in a footnote. Note that the footnote is on the 'urea' nitrogen in the N breakdown of the Total Nitrogen (N) guarantee and is less than the 'urea' nitrogen guarantee. Typically, sulfur coated urea is not 100% coated so an allowance must be made for this in the guarantee for the 'slowly available urea nitrogen' .*
2. *An acceptable alternative would be to show the 'slowly available urea nitrogen' as a component in the nitrogen breakdown. In that case, the following statements would be acceptable substitutes for the urea guarantee and there would be no footnote:*

1% Urea Nitrogen

4% Coated Slow Release Urea Nitrogen

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Inspector Visits Texas State Chemist Office

A visit was made to the Office of the Texas State Chemist to review their inspector computer system and how inspectors use it. Texas has been using their current system for several years and will have new system operating by 2004. Company sample records, stop sales and past violations are available to the inspector in the field using this system. It allows inspectors to enter samples and check progress of samples in the laboratory and has the capability to send all information electronically between the main office and field locations. The Texas system is very good and helps inspectors perform investigations and sampling more efficiently -- inspectors can be up-to-date with all stop sales and samples taken for all companies. The visit to the Office of the Texas State Chemist was interesting and ideas will be of use in our Inspection Program.

John Flood -- Area Regulatory Specialist, Western Kentucky

Patented Seed, continued from pg. 3

What actions have been taken by the owners of the technology? Two West Tennessee growers were fined a total of almost \$2,300,000 for patent infringement. These were two separate cases. Growers in Illinois, Texas, Arkansas, Mississippi, and South Dakota have experienced similar actions. The owner of the Roundup technology appears committed to protecting its rights to the technology. A number of out of court settlement cases have occurred in addition to the examples cited.

Dealers, retailers, seed cleaners, and others who cause infringement by dealing with black market seed are subject to investigation and legal action by the owner of the technology. Growers who save seed that has patented technology for either their own use or for sale to others are also at risk. The risk of being discovered is not worth the money to be saved or made by participating in this illegal activity. Technology owners and owners of US protected varieties are becoming more active in protecting their rights. The ounce of prevention here is to avoid being involved in any practice that would infringe upon the rights of the owners of the technology or the variety in the case of PVPA varieties. The pound of cure is too costly.

D. Buckingham -- Seed Regulatory Program

Annual Seed Permits and Registrations

Applications for annual seed permits and seed registrations will be mailed in December. Only the application(s) that a location is required to obtain will be mailed to each location. Applications sent are determined by the current permit-registration listing for each location.

Seedsman that label agricultural seed, vegetable seed, flower seed, or combination seed, mulch, fertilizer products are required to obtain a permit. Seed dealers that sell seed in container sizes of 40 pounds or more and locations that clean uncertified seed are required to register.

Please complete the application you receive and return to our office on a timely basis. The fee that is required for your application(s) will be written in on the notice to renew. Please send only the amount that is indicated. Multiple applications in most circumstances require only one \$25 Fee. Thank you in advance for your prompt response.

D. Buckingham -- Seed Regulatory Program

Supervisors Complete Training

Division employees recently completed SuperVision training through UK's Human Resources. Topics covered in the training included goal setting, communication, conflict resolution and diversity issues. Mel Bryant, Cindy Finneseth, Steve McMurry, Frank Sikora and Chris Thompson completed the course and were recognized by the University at an awards ceremony in November.

Animal Feed Safety System Meeting

On September 23-24, a public meeting was held outside Washington, DC to discuss the Food and Drug Administration's plan to develop a comprehensive, risk-based animal Feed Safety System (AFSS). Representatives from the feed and pet food manufacturers, renderers, ingredient suppliers, consumer groups, academia and several foreign embassies, along with state feed control agencies and FDA representatives attended the meeting.

The meeting was designed to gather information and evaluate the merits of a risk-based animal feed safety system to safeguard the nation's food supply. Dr. Sundlof, CVM Director, provided an overview and timeline for the agency to evaluate the merits. The first focus area to be completed by November 2004 is a concept paper to support the AFSS concept. The timeline for development of proposed regulations is April 2006 and the final regulations promulgated in April 2007.

The elements of the AFSS outlined by the FDA are: 1) a thorough analysis of manufacturing and distribution for each product; 2) identification of risks associate with the process and product; 3) identification and implementation of controls to prevent the identified risks; 4) employee training; 5) process controls focused on the critical steps; 6) assurance the steps are accurately and consistently performed; and 7) recordkeeping and validation of the system.

The potential benefits of the AFSS are the establishment of a uniform standard for all feed industry sectors, the further enhancement in safety of meat, milk and eggs, the better utilization of resources by state and federal agencies, and better enforcement of regulations through a risk-based approach.

Anyone interested in the proposed AFSS may submit written or electronic comments to the Division of Documents 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>. Comments should be identified with document number 2003N-0312.

S. Traylor -- Feed Regulatory Program

On-line Seed Test Results

Beginning January, 2004 Seed Laboratory service customers will be able to access sample information via the Division's website (www.rs.uky.edu/seed). At any time a customer will be able to review sample information using a confidential user name and password. Regulatory sample information will be available on-line by this summer. For more information about on-line results or to set up a user name and password, please call (859) 257-2785 or email (cfinnese@uky.edu).

2003 has been a record testing year for the Seed Lab. Sample load continues to increase, primarily due the closing of private seed testing labs and increased sample submission. We are working to accommodate the increase in activity and ask for your patience if receiving sample results take a bit longer than usual. We anticipate our on-line system will reduce reporting time significantly. We are also exploring other options to decrease sample evaluation time. Please let us know if you have suggestions or comments.

C. Finneseth -- Seed Testing Program

2004 AAFCO OFFICIAL PUBLICATION

The Official Publication of the Association of American Feed Control Officials is an essential reference manual for individuals involved in the feed and pet food industry. This manual contains up-to-date information on the following:

- Model law and regulations for commercial feed, pet food, and ingredients.
- State, FDA and Canadian feed control contacts with address, e-mail, telephone and fax number.
- Approved feed ingredients and their definitions.
- Regulatory requirements for distributing feed products in each state.
- Medicated feed labeling guide.
- Analytical methods reference and analytical variations.
- AAFCO committees and industry advisors.
- Proceedings of the most recent AAFCO annual meeting.
- Canine and feline nutrient profiles and labeling guide.

The 2004 Official Publication is available. Orders can be sent to:

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Visit the AAFCO web site www.aaftco.org for pricing information, order forms and other information.

S. Traylor -- Feed Regulatory Program

Federal Seed Lab Training

David Buckingham, Tina Tillery and Cindy Finneseth recently attended a two-day Federal Seed Act Training, held at the new Federal Seed Lab facility in Gastonia, NC.

Regulatory topics covered were: sample documentation and care, testing capabilities of the AMS, trueness-to-variety testing, inspector conduct and brand vs. variety in labeling.

Testing issues covered included: tolerances, mixing and dividing samples and pure seed determination. Twenty-two inspectors, regulatory officials and seed testing personnel attended, representing 10 state programs.

C. Finneseth -- Seed Testing Program

ASFFPCO 2003 Summer Meeting

Three Regulatory Services' inspectors attended the Association of Southern Feed, Fertilizer and Pesticide Control Officials (ASFFPCO) meeting in Fort Worth, Texas. Topics covered at the meeting included: drug and structural/functional claims; quality control procedures associated with liquid feed production; enforcement action in Maryland due to the Canadian BSE case; inspection programs; biosecurity and emergency preparedness for feed and fertilizer facilities and digital documentation in feed and fertilizer work

Featured speakers included: Dr. William Burkholder, pet food specialist with FDA; Paul Mostyn, Quality Control Manager for Westway Feed Products; Robert Hopkins, Product Registration with Maryland Department of Agriculture and Texas Feed and Fertilizer Control representatives Curtis Hinton, Roger Hoestenbach and Frank Jaramillo.

The talk by Paul Mostyn on quality control procedures associated with liquid feed production was especially interesting as they have a block plant located at Park City, Ky.

*Noel Johnston -- Area Regulatory Specialist,
Central Kentucky*

Possible Change in Seed Testing Prices

The Kentucky State Seed Laboratory is evaluating the current service testing price scheme and considering the following changes:

- increasing the hourly fee from \$8.00 to \$20.00
- establishing a pricing scheme for testing native grasses
- creating TZ charges for crop kinds, including grasses and native species

If approved, these testing charges would be added to the Regulations and go into effect July 1, 2004. Only the charges listed above will be effected; other testing fees will remain unchanged.

A survey will be sent to our active customers to gain input on these changes and the potential impact on the seed industry in Kentucky. A list of current charges and detailed information about the possible changes are available on our website. The survey can also be completed and submitted on-line at www.rs.uky.edu/seed/survey.html.

The current pricing structure for the State Seed Lab was developed in 1993. A careful evaluation of other seed testing labs has shown that Kentucky is among the most affordable testing labs in the country. We are committed to continuing to provide affordable testing for the industry, but also need to address advances and changes in the seed trade. If you would like to discuss any of these topics, please contact the seed program at (859) 257-2785 or by email at cfinnese@uky.edu.

C. Finneseth -- Seed Testing Program

Analytical Laboratory Personnel News

The laboratory personnel continue to improve or increase their abilities each year. Recently, several persons have been involved in training classes and courses.

Garland McGee traveled to Purdue University this spring to attend the Feed Microscopy Short Course. This was a five-day course dealing with different techniques for identifying feed ingredients. He received a Certificate of Participation for his successful completion of this American Oil Chemists' Society course.

Paul Wilson is training in the Feed and Fertilizer Laboratory for potash analysis and digestions using the Hot Block and Microwave systems. He moved from the sample receiving and preparation lab where he also performed the SGN analysis last spring. Paul continues to assist with the Somascope to analyze milk for somatic cell content.

In early October, James Bartos traveled to Atlanta to attend a software-training program

conducted by SKALARTM. The SKALAR automated spectrophotometer is used to determine fertilizer phosphate and potash levels. The new software is more "network friendly". This will allow the data to be processed in a more efficient manner for the laboratory. Also, some new equipment components will expand the range of materials that can be measured with the instrument.

David Wells attended the Foss North America Infrared Training school in Laughlin, Nevada. This is a three-day training school held in October. It consist of infrared theory, sample testing, calibration, computer applications and troubleshooting for the Foss FT 120 milk analyzer. David received his Certificate of Completion after successfully completing this course.

*Robert Kiser -- Feed and Milk Laboratories
James Bartos -- Feed, Fertilizer Laboratory
Melton Bryant -- Feed, Fertilizer Laboratory*

Fertilizer Labeling, continued from pg. 5

Example 2:

A fertilizer with all nitrogen materials coated:

| Fertkote 10-15-20 | |
|--|-----|
| Guaranteed Analysis | |
| Total Nitrogen (N)* | 10% |
| 2.5% Ammoniacal nitrogen | |
| 2.5% Nitrate nitrogen | |
| 5.0% Urea nitrogen | |
| Available Phosphate (P ₂ O ₅) | 15% |
| Soluble Potash (K ₂ O) | 20% |
| Sulfur (S) | 14% |
| *8% Slowly available nitrogen from polymer coated ammonium nitrate and sulfur coated urea. | |

Comments:

1. The footnote refers to the 'Total Nitrogen' indicating that all the nitrogen materials have been modified, in this case, the ammonium nitrate and urea have been coated.
2. The polymer coated ammonium nitrate is covered by the term T-32.
3. The 'slowly available nitrogen' guarantee is less than the Total Nitrogen guarantee indicating that an allowance is being made for imperfections in the coated materials.

Example 3:

A fertilizer with two (2) or more nutrients from coated materials:

| Fertkote 10-15-20 | |
|---|-----|
| Guaranteed Analysis | |
| Total Nitrogen (N)* | 10% |
| 2.5% Ammoniacal nitrogen | |
| 2.5% Nitrate nitrogen | |
| 5.0% Urea nitrogen | |
| Available Phosphate (P ₂ O ₅)* | 15% |
| Soluble Potash (K ₂ O)* | 20% |
| Sulfur (S) | 14% |
| *The nitrogen, phosphate and potash materials in this product have been coated to provide 9.0% coated slow release nitrogen (N), 13% coated slow release available phosphate (P ₂ O ₅), and 18% coated slow release Soluble Potash (K ₂ O). | |

Comments:

1. The NPK guarantees are all footnoted since all the materials are coated.
2. The 'coated slow release' NPK guarantees are all less than the total guarantees of the individual nutrients.
3. The coated NPK materials would be covered under the terms T-21 or T-32.

Example 4:

A fertilizer with all nutrients from occluded materials:

| Tree Spike 10-15-20 | | |
|---|--|-----|
| Guaranteed Analysis | | |
| Total Nitrogen (N)* | | 10% |
| 2.5% Ammoniacal nitrogen | | |
| 2.5% Nitrate nitrogen | | |
| 5.0% Urea nitrogen | | |
| Available Phosphate (P ₂ O ₅)* | | 15% |
| Soluble Potash (K ₂ O)* | | 20% |
| Sulfur (S) | | 14% |

*The nitrogen, phosphate and potash materials in this product have been occluded to provide 9.0% occluded slowly released nitrogen (N), 13% occluded slowly released available phosphate (P₂O₅), and 18% occluded slowly released Soluble potash (K₂O).

Comments:

1. *The NPK guarantees are all footnoted since all the materials are occluded.*
2. *The 'occluded slowly released' NPK guarantees are all less than the total guarantees of the individual nutrients.*
3. *The 'occluded slowly released' NPK materials would be covered under Regulation 3 (b) shown above.*

Summary



Use of coated and occluded fertilizers is found mainly in specialty fertilizers although some coated materials have been tried in commercial operations. This discussion has laid out the main points to consider when developing a specific fertilizer and their accompanying label and labeling.

If you have questions about a specific label, I will be glad to consult with you and do a review of a draft label. This is always recommended since it is quite expensive to change an unacceptable printed, color label.

D. Terry -- Fertilizer Regulatory Program

The Division of Regulatory Services will be closed for winter break beginning Thursday, December 25. The Division will reopen at 8:00 am Friday, January 2.

The Seed Lab will be open over the break. To contact the Seed Lab, call (859) 257-2785, extensions 253, 254, 255 or 256.



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