

# MISSOURI AGRICULTURAL LIMING MATERIALS LAW AND RULES

## Chapter 266 (Revised 1999){PRIVATE }

**266.500 Short title.**--Sections 266.500 to 266.550 may be cited as the "Missouri Agricultural Liming Materials Act"

**266.505. Definitions.**--Unless the context clearly requires otherwise, as used in sections 266.500 to 266.550, the following terms have the following meanings:

(1) "**Agricultural limestone**", finely ground or crushed limestone, either calcitic or dolomitic, which shall have a minimum specification of ninety percent of the materials passing through a United States standard number eight sieve;

(2) "**Agricultural liming materials**", those materials containing calcium or calcium and magnesium in the carbonate, oxide or hydroxide form or a combination thereof, which are capable of neutralizing soil acidity and supplying plant nutrients;

(3) "**Other agricultural liming materials**", calcium or calcium and magnesium in the carbonate, oxide, or hydroxide form or a combination thereof, which is capable of neutralizing soil acidity and which meets the same minimum fineness specifications as those for crushed or ground limestone, except for specially processed materials which must meet specifications as set forth in the rules and regulations;

(4) "**Agricultural liming material mixture**", includes agricultural liming materials and any other compound in a mixture, including, but not limited to, fertilizer materials, pesticides, water or other products mixed with agricultural liming materials. Minimum specifications of fineness and purity as set forth in sections 266.500 to 266.550, and the rules promulgated under sections 266.500 to 266.550, must be met on the agricultural liming material prior to its being mixed with other compounds;

(5) "**Official sieve analysis of agricultural liming materials**", analysis determined by the Association of Official Analytical Chemists wet sieve method;

(6) "**Brand**", the term, designation, trademark, production name or other specific designation under which individual agricultural liming materials are offered for sale;

(7) "**Label**", any written or printed matter on or attached to the delivery ticket which accompanies bulk shipments;

(8) "**Person**", any individual, partnership, association, firm, or corporation;

(9) "**Producer**", and individual, firm, partnership, or corporation, who in the operation of a limestone quarry crushes or grinds agricultural liming materials or who produces agricultural limestone or agricultural liming materials as a residue or by-product of mining, milling, or processing of ore;

(10) "**Distributor**", any person who imports, consigns, manufactures or produces agricultural liming materials for consumption or use in this state, except that this term shall not apply to any person who purchases agricultural liming materials from a distributor registered under sections 266.500 to 266.550 and which has once been sold in compliance with sections 266.500 to 266.550;

(11) "**Director**", the Director of the Missouri agricultural experiment station at Columbia, Missouri;

(12) "**Bulk**", non-packaged form;

(13) "**Ton**", two thousand avoirdupois pounds;

(14) "**Metric ton**", two thousand, two hundred avoirdupois pounds;

(15) "**Percent or percentage**", by weight;

(16) "**Permanent fixed plants**", stationary crushing and screening equipment which is immobile;

(17) "**Portable plants**", mobile crushing and screening equipment mounted on wheels.

### **266.510 Sale of non-complying materials prohibited--exception.**

No agricultural liming material in bulk shall be sold offered for sale in this state unless it complies with the provisions of sections 266.500 to 266.550 except that sections 266.500 to 266.550 shall not apply to bagged agricultural liming materials.

**266.515 Permit required annual expiration date.**--It shall be unlawful for any distributor or producer to sell, offer for sale, or expose for sale, for consumption or use in this state any agricultural liming materials without first securing a permit from the director. The permit shall expire on the thirtieth day of June each year. Application for the permits shall be on forms furnished by the director.

**266.520. Certification of Sales--fee to be set by rule.**--1. Every producer or distributor shall, within thirty days after each six-months' period ending June thirtieth and December thirty-first, file with the director on forms supplied by him, a certificate setting forth the amount of agricultural liming materials sold by each producer or distributor for consumption or use in the state of Missouri during each respective period. At the time of filling the certificate, each producer or distributor shall pay to the director the fee prescribed by the director by rule which fee may not exceed ten cents per ton or eleven cents per metric ton. In the event that the director has not prescribed a fee under this section, each producer or distributor shall pay a fee of four cents for each ton or four and four-tenths cents for each metric ton of agricultural liming materials sold by him during the period covered by the certificate filed under this section.

2. The amount of the inspection fee shall be added to and clearly stated on each sales statement or invoice. The fee so paid to the director shall be used for defraying the expenses in administering sections 266.500 to 266.550 and the rules promulgated under sections 266.500 to 266.550, and for practical and scientific experiments by the Missouri agricultural experiment station in the proper use of agricultural liming materials. The fee may also be used to support related research and methodology, publications and educational programs extending the results of these agricultural liming materials experiments as may be of practical use to the farmers of this state.

**266.525. Quality standards of agricultural liming materials.**--All agricultural liming materials offered for sale must be capable of correcting soil acidity, and furnishing calcium or magnesium, as plant nutrients, and meet the minimum specifications for calcium carbonate equivalent, and fineness of grind, as set forth in the regulations. All agricultural liming materials offered or exposed for sale in Missouri shall guarantee the pounds of effective magnesium per ton and the pounds of effective neutralizing material per ton. Effective magnesium and effective neutralizing material shall be calculated by the methods

set forth in the regulations according to the percentage of magnesium, the calcium carbonate equivalent and fineness as determined in section 266.535.

**266.530. Samples, how taken, number required.**

1. Samples of agricultural liming materials within the meaning of the act shall be obtained by taking the sample from the producer's production belt as the material is being produced or from stockpile. Sampling of stockpiles may be made when there is a stockpile having no certification of the calcium carbonate equivalent, magnesium content, fineness, effective neutralizing material, and effective magnesium as herein provided. A total of eight or more samples shall be taken at locations where there are permanent fixed plants during the year in which agricultural liming materials are being produced or distributed but not more than one official sample per day may be taken from each individual stockpile or production belt.
2. Samples shall be taken at locations where there is no permanent fixed plant during the month that a portable plant is at a given location until a total of eight or more samples are accumulated for a fiscal or calendar year from either production plant or stockpile.
3. Samples shall be taken of agricultural liming materials until a total of three representative samples have been accumulated and submitted for analysis to determine an average, after which a sample shall be obtained and tested with the average recalculated for guaranteed analysis by dropping the analysis of the oldest sample and using the analysis of the most recently taken sample to establish a new average.
4. Samples for analysis must be taken from the production belt by the producer or distributor or authorized representative in the presence of a person appointed by the director. Samples from stockpiles for analyses shall be taken only by persons authorized and appointed by the director upon prior notification of the producer or distributor involved. Samples may be taken from trucks and at other points but will not be used in computing the average for the purposes of the guaranteed analyses at source of production or stockpile.
5. Producers or distributors of agricultural liming materials shall notify the director, or persons appointed or authorized by him, of the production or distribution of agricultural liming materials so that samples may be taken in compliance with this section.
6. All samples for analysis shall be taken according to official sieve analysis of agricultural liming materials methods as set forth in the regulations.

**266.535. Samples, how analyzed, results to producer and director.**--Samples of agricultural liming materials taken as provided in section 266.530 shall be submitted by the director, or persons appointed or authorized by him, to the University of Missouri agricultural experiment station chemical laboratories for analysis. The samples shall be analyzed for calcium carbonate equivalent, magnesium content, and fineness of grind based on Association of Official Analytical Chemists methods of analysis. The results of the analysis of each sample shall be submitted to the producer or distributor or record and the director.

**266.540 Certification of analysis--final responsibility for effectiveness with producer.**

1. The director shall, upon receipt of the analysis provided in section 266.535, certify the percent calcium carbonate equivalent, percent magnesium content, fineness, effective magnesium per ton, and effective neutralizing material per ton, of the liming material to the producer or distributor from whom the sample was obtained by forwarding written notice by United States mail.
2. Nothing in sections 266.500 to 266.550 shall preclude a producer or distributor of agricultural liming materials from having a certificate on separate stockpiles; provided that, the stockpiles shall be separated from any other stockpile, and the separate stockpiles shall have been sampled as provided in sections 266.500 to 266.550.
3. Agricultural liming materials produced and stockpiled prior to the enactment of sections 266.500 to 266.550 shall be subject to the same

provision of sections 266.500 to 266.550 as apply to sampling for analysis and certification.

4. Final responsibility for the guarantee of effective magnesium and effective neutralizing material per ton is vested in the producer or distributor making delivery of agricultural liming materials for distribution or spreading on farms or agricultural lands or other land for the purpose of decreasing soil acidity and adding calcium or calcium and magnesium to soils.
5. Where the producer or distributor has possession of agricultural liming materials which fail to meet the guaranteed analysis, the producer or distributor may sell this material only after adjusting the guaranteed analysis to the correct analyses.

**266.543. Advisory Council, membership, purpose--**1. An advisory council of nine members shall be appointed by the director pursuant to this section. Of nine members so appointed, three shall be actively engaged in the business of farming, and three shall be chosen from the residents at large of this state. The three members chosen for the residents at large of this state shall be selected by the director with the approval of a majority of the other six members of the advisory council.

2. The advisory council shall:

- (1) Meet at least once each year;
  - (2) Annually review with the director the income received and expenditures made under sections 266.500 to 266.550;
  - (3) Review and approve all rules, revisions or rescissions thereof, to be promulgated by the director;
  - (4) Consider all information and advise the director the director in determining the method and amount of fees to be assessed. In performing its duties under this subdivision, the advisory council shall represent the best interests of the Missouri farmers;
  - (5) Serve in an advisory capacity in all matters pertaining to the administration of sections 266.500 to 266.550.
3. All members of the advisory council shall serve terms of three years and until their successors are duly appointed and qualified; except that of the members first appointed:
- (1) One member who is actively employed as a limestone producer, one member actively engaged in the business of farming, and one member chosen from the residents of this state at large shall serve terms of three years;
  - (2) One member who is actively employed as a limestone producer, one member actively engaged in the business of farming, and one member chosen from the residents of this state at large shall serve terms of two years;
  - (3) The remaining three members shall serve for terms of one year.

4. All members shall be residents of this state. No member may serve more than two consecutive terms on the advisory council, but any member may be reappointed after he has not been a member of the advisory council for a period of at least three years.

5. All members shall be reimbursed for reasonable expenses incurred in the performance of the official duties in accordance with the reimbursement policy of the director. All reimbursements aid under this section shall be paid from fees collected under sections 266.291 to 266.351.

6. Every vacancy on the advisory council shall be filled by the director with the approval of a majority of the remaining members of the council. The person selected filling any such vacancy shall possess the same qualifications required by this section as the member he replaces and shall serve until the end of the unexpired term of his predecessor.

**266.545. Powers of Director--**1. The duty of enforcing and administering sections 266.500 to 266.550 shall be vested in the director. The director shall, in accordance with chapter 536 RSMo, promulgate such reasonable rules and regulations necessary to provide for the efficient enforcement of sections 266.500 to 266.550; except that, no rule or regulation, nor revision or rescission thereof, shall be filed with the secretary of state until the same has been approved by a

majority of the advisory council members provided for in sections 266.500 to 266.550.

2. The director or his authorized agents are authorized and empowered to:

(1) Collect samples, inspect, and make analyses of agricultural liming materials sold offered, or exposed for sale within this state;

(2) Enter upon any public or private premises during the regular business hours in order to have access to the agricultural liming materials subject to sections 266.500 to 266.550, and the rules and regulations promulgated thereunder, and to take samples and inspect such agricultural liming materials;

(3) Inspect and audit the records pertaining to the sale of agricultural liming materials of every producer or distributor who sells, offers for sale, exposes for sale agricultural liming materials for consumption or use in this state, to determine whether or not compliance with the provisions of sections 266.500 to 266.550 are being met;

(4) Issue and enforce a written or printed "stop-sale, use or removal" order to the owner or custodian of any agricultural liming material which is found to be in violation of any of the provisions of sections 266.500 to 266.550, which order shall prohibit further sale of such agricultural liming materials until the provisions within section 266.500 to 266.550 have been complied with or the violation has been otherwise legally disposed of by authority of the director;

(5) Maintain a laboratory with necessary equipment, and to employ such employees as may be necessary to aid in the administration of sections 266.500 to 266.550;

(6) Publish each year a full and detailed report giving the names and addresses of all producers and distributors registered under sections 266.500 to 266.550, including that analytical results of all samples collected. A statement of all fees, tonnage of agricultural lime, and expenditures made under sections 266.500 to 266.550 shall be composite for the entire state of Missouri;

(7) Revoke or suspend the permit or refuse to issue a permit to any producer or distributor who has willfully violated any of the provisions of sections 266.500 to 266.550 or who failed or neglected to pay the fees provided for in sections 266.500 to 266.550.

**266.550. Instrument of sale, information to be shown on.**

1. All agricultural liming materials sold, offered, or exposed for sale shall guarantee effective neutralizing material and the effective magnesium per ton.

2. Any person who shall sell, offer, or expose for sale, or who shall ship, transport, or deliver agricultural liming materials, shall affix or cause to be affixed to every bill of lading, scale ticket, delivery receipt or other instrument of sale plainly thereon the net weight of the lot and the guarantee of the effective magnesium and effective neutralizing material per ton as provided in sections 266.500 to 266.550 and the name, brand, if any, under which the liming material is sold, the name of the manufacturer, producer or shipper, and the location of the principal office of the manufacturer, producer or shipper.

**RULES ADOPTED FOR USE UNDER  
THE MISSOURI AGRICULTURAL LIMING MATERIALS  
LAW  
RSMo 266.500--266.550**

**Title 6-- DEPARTMENT OF HIGHER EDUCATION  
Division 250--University of Missouri  
Chapter 1-- Organization and Description**

**RULE**

**6 CSR 250-1.020 Agricultural Experiment Station General  
Organization**

*PURPOSE: The purpose of this rule is to comply with section 536.023 RSMo. (Supp. 1975) which requires each agency to adopt as a rule a description of its operation and the methods whereby the public may obtain information or make submissions or requests.*

- (1) The Missouri Agricultural Experiment Station is a unit of the University of Missouri-Columbia and was established under authority of the Agricultural Experiment Stations Act (7 USC sections 361a-361i).
- (2) The object and duty of the Missouri Agricultural Experiment Station is to conduct original and other researches, investigations and experiments bearing directly on and contributing to the establishment and maintenance of a permanent and effective agricultural industry in the United States.
- (3) The director of the Missouri Agricultural Experiment Station is responsible for the enforcement and administration of the Missouri Fertilizer Law and the Missouri Agricultural Liming Materials Act.
  - (A) The primary responsibilities of the Missouri Agricultural Experiment Station under the Missouri Fertilizer Law are to provide systems of registry, field inspections, laboratory analysis, penalty and enforcement procedures, and publications of results necessary to assure the quality of fertilizers offered for sale in the state.
  - (B) The primary responsibilities of the Missouri Agricultural Experiment Station under the Missouri Agricultural Liming Materials Act are to provide systems of registry, field inspections, laboratory analysis, enforcement procedures and publications of results necessary to assure the quality of liming materials offered for sale in the state.
- (4) The office of the Director of the Missouri Agricultural Experiment Station is Room 2-69, Agriculture Building, University of Missouri-Columbia, Columbia, MO, 65211, telephone ( 573)882-3846.

**Chapter 10--Administration of Mo. Agriculture  
Liming Materials Law**

**6 CSR 250-10.010 Adoption of Basic Sampling Procedures.**

*PURPOSE: To establish reference sources for sampling agriculture liming materials.*

(1) The Association of American Plant Food Control Officials Inspector's Manual has been developed on a national basis as a training guide for the proper performance of the duties and responsibilities delegated to fertilizer inspectors. Procedures for obtaining representative samples of bulk fertilizer are described in this manual as a guide to the inspector. The procedures described are also appropriate and thereby adopted for the obtaining of representative samples of agricultural liming materials. The current edition of the Inspector's Manual is the Third Edition, 1977. As new editions are published they will replace the older editions in this rule and this rule will be amended accordingly. Other sources such as Assoc. of Official Analytical Chemists (AOAC) Official Methods of Analysis, ASTM Manuals and other such accredited sources will also be used as references.

**6 CSR 250-10.020 Agricultural Liming Materials Standards.**

*PURPOSE: To set forth such standards and guidelines as are necessary to provide for efficient enforcement of the provisions of the Missouri Agricultural Liming Materials Law.*

- (1) Agricultural liming materials and agricultural liming materials mixtures, as defined in paragraphs (1), (2), (3) and (4) of section 266.505, RSMo (1978), by virtue of their physical and chemical characteristics must, in part be treated separately under the Missouri Agricultural Liming Materials Law. Each delivery shall be guaranteed as to the effective neutralizing material and the effective magnesium, as derived by 6 CSR 250-10.020(3), (4) and (5).
- (2) All dry agricultural liming materials offered for sale shall have a minimum calcium carbonate equivalent of sixty-five percent (65%), and shall meet the minimum specifications of 6 CSR 250-10.020(2).
- (3) The pounds of effective neutralizing material (E.N.M.) in one (1) ton of agricultural liming material shall be based on the calcium carbonate equivalent (C.C.E.) of the agricultural liming materials as delivered for sale and the fineness factor calculated from the percent of materials passing a United States standard sieve size number eight (8) and remaining on a United States standard sieve number forty (40), percent of materials passing a United States standard sieve number sixty (60), and percent of materials passing a United States standard sieve size number sixty (60).

United States Standard Sieve Size No. Ranges (%)	Efficiency Percentages
% Remaining on 8	0
% Passing 8 and Remaining on 40	25
% Passing 40 and Remaining on 60	60
% Passing 60	100

The fineness factor is calculated to allow for variations in fineness of materials using the following formula:

$$\text{Fineness Factor} = (\% \text{ of materials passing U.S. No. 8 and remaining on } 40 \times 0.25) + (\% \text{ of materials passing U.S. No. 40 and remaining on } 60 \times 0.60) + (\% \text{ of materials passing U.S. No. } 60 \times 1.00)$$

Calculations to allow for variations in calcium carbonate equivalent and fineness shall be made by using the following formula:

$$\text{E.N.M.} = \frac{\% \text{ C.C.E.}}{100} \times \frac{\text{Fineness Factor}}{100} \times 800$$

The final result of calculations shall be rounded to nearest whole number, which will be pounds of effective neutralizing material per ton.

- (4) The pounds of effective magnesium (E.Mg.) in one (1) ton of agricultural liming material which meets the specifications of 6 CSR 250-10.020(2) shall be based on the magnesium content of the

agricultural liming materials delivered for sale and the fineness factor as determined in 65 CSR 250-10.020(3). Calculations to all for variations in magnesium content and fineness shall be made using the following formula:

$$\text{E.Mg.} = \frac{\% \text{ Mg.}}{100} \times \frac{\text{Fineness Factor}}{100} \times 2000$$

The final result of calculations shall be rounded to the nearest whole number, which will be the pounds of effective magnesium per ton. (5) The pounds per ton of effective neutralizing material (E.N.M.) and the pounds per ton of effective magnesium (E.Mg.) for agricultural liming materials mixtures shall be based on the calcium carbonate equivalent and the magnesium content of the agricultural liming material mixture as delivered to sale and on the fineness factor of the dry agricultural liming material used in the mixture as determined in 6 CSR 250-10.020(3) and (4).

(6) All samples of agricultural liming materials taken from analyses shall be taken in accordance with the following methods and procedures.

(A) Production or transfer belt sampling: With a stream sample, follow the basic procedures outlined in 6 CSR 250-10.010 (1) but extend the time between passes to at least thirty (30) seconds. This procedure may be used at any point where agricultural lime is being produced or transferred by belt. The opening of the stream sampler may be closed to about three quarters of an inch (3/4") if the opening is the same width over its entire length to avoid excessively large samples.

(B) Freshly built and active stockpile sampling: When material is being regularly added to or withdrawn from a stockpile of agricultural liming materials, samples should be taken with the "D" tube device. If probing by means of the "D" tube is not possible, follow instructions of 6 CSR 250-10.020(6) (D). In all probe sampling, distribute sampling locations uniformly on the surface of the area to be represented.

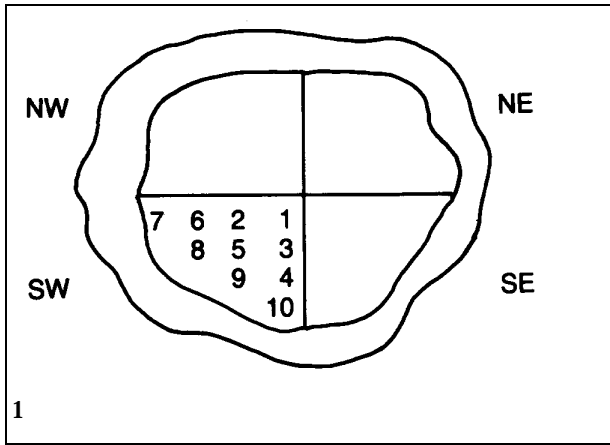
(C) Truck sampling: Trucks may be sampled with the stream sampler during loading or with the "D" tube after loading following precisely the instructions for sampling bulk fertilizer in 6 CSR 250-10.010(1). Generally, trucks should be sampled only to represent a load ready for delivery to a known final purchaser and trucks merely hauling material to a stockpile should not normally be sampled since truck samples may not be used in determining either the production point or stockpile certification.

(D) Crusted and temporarily inactive stockpile sampling (Which cannot be probed).

1. Several tons (or several truckloads if possible) should be pulled down from the working face of the load-out area. The "D" tube should then be used to draw ten (10) cores representatively distributed over the loosened material. Each subsequent official sample must be from newly pulled down materials.

2. If it is not possible or feasible to pull down materials, a straight narrow bladed spade (sharpshooter) should be used.

A. Stockpiles of over one thousand (1000) tons: The stockpile should be oriented with regard to compass direction so that it may be divided into four identifiable pie shaped quadrants. Only one quadrant should be sampled at a time, sampling the side that will be used for loading-out first, if possible, with sampling points located over entire area approximately as indicated.



Clear away crusted material with the sharpshooter until a full spade depth of loose, uncaked material can be removed. One (1) or two (2) full spadesshould then be removed. Then cut a smooth face at a sufficient angle from vertical so that a one inch (1") slice of agricultural lime may be removed intact in the spade. Everything except a one inch (1") by one inch (1") section from the top to the bottom of the space should be removed. (The top opening of a stream sampler turned upside down, may be used to cover this central section while the excess at each side is removed.) This one inch (1") by one inch (1") central core should then be put in a plastic bag. This procedure should be repeated for each sampling point until ten (10) cores are composited to make up an official sample. After the crust is removed, it may be possible to probe some of the sampling locations. A combination of ten (10) "D" tube cores and spade cores may be composited together to make up the official sample.

B. Stockpiles of one thousand (1000) tons or less may be sampled as in 6 CSR 250-10.020(6) (D) 2.A., except that sampling locations should be uniformly distributed over the entire surface of the pile.

3. Only one (1) sample may be taken from a stockpile on any single day. If a stockpile remains inactive for several weeks, all quadrants might be sampled in this manner, however, probe sampling should be used in the area of activity at any time a stockpile is being used or rebuilt.

(E) Sampling fluid lime suspensions.

1. Fluid lime suspensions should be sampled, whenever possible, immediately after mixing as the product is being loaded from the mixing vat to the delivery vehicle. The sample should be caught from the delivery line at the delivery vehicle after at least one hundred (100) gallons have been loaded and while a substantial quantity remains to be loaded. Use a wide mouth polyethylene sampling bottle of at least one (1) pint capacity. It may be necessary to reduce product flow momentarily during sampling.

2. If the above sampling procedure is not possible, fluid lime may be sampled from the mixing vat, delivery vehicle or storage after thorough agitation with a heavily weighted fluid fertilizer sampling bottle following procedures for sampling fluid fertilizer suspensions described in the Association of American Plant Food Control Officials Inspector's Manual cite in 6CSR 250-10.010.

#### 6 CSR 250-10.030 Inspection Fee

*PURPOSE: This rule sets for the inspection fee.*

The fee provided by section 266.520 to be prescribed by rule shall be six cents (6¢) per tons (2,000 pounds) of agricultural limestone, agricultural liming materials and other agricultural liming materials as defined in paragraphs (1), (2) and (3) of section 266.505, RSMo (1978) sold for use in Missouri.

#### 6 CSR 250-10.040 Annual permit fee

*PURPOSE: This rule establishes and Annual Fee for the permit to sell agricultural liming materials in the state.*

The director will cause to be mailed each year on or about the 15<sup>th</sup> of April a renewal application form to all distributors or producers currently selling agricultural liming materials in the state to renew their permits required by section 266.515 for the coming year. The completed application shall be returned to the director by June 1, accompanied by a permit fee of one hundred dollars (\$100) US. New applications shall also be accompanied by a permit fee of one hundred dollars (\$100) US. Permit fees collected will be used to defray administrative costs of distributor/producer registration, with any permit fees collected in excess of administrative costs to be used to support related research proposals.

#### 6 CSR 250-10.050 Collection fee for delinquent filing of Certification of Sales

*PURPOSE: This rule establishes a collection fee on distributors or producers who do not file a certificate of sales form within thirty days after each six-month period.*

If the certificate of sales form described in §266.520 is not filed and the payment of inspection fees is not made within 30 days after the end of the specified filing period, a collection fee amounting to ten percent (10%) of the amount due or fifty dollars (\$50) US, whichever is greater, shall be assessed against the distributor or producer and added to the amount due.