

Subpart 3-Bureau of Plant Industry
Chapter 05- Soil and Plant Amendment Law

Administrative Procedures and Hearing Rules for Promulgation of Regulations.

- 100.01 An announcement of public hearing for promulgation of proposed rules and regulations will be made by the Commissioner and State Chemist in a newspaper of general circulation on two successive weeks at least thirty (30) days prior to the proposed hearing date. This notice will be filed with the Office of the Secretary of State, along with copies of the proposed rules and regulations for mailing to interested parties requesting same.
- 100.02 A copy of the proposed regulations will be mailed to each firm currently registered to sell soil and plant amendments in the state at least twenty (20) days prior to the hearing date. The proposed regulations will also be mailed to any interested parties requesting same in writing, and to those who have made timely request of the Commissioner of Agriculture and the State Chemist for advance notice of rule-making proceedings in connections with this law. Requests for copies of proposed rules and regulations should be directed to the Commissioner of Agriculture and Commerce, or to the Secretary of State. The Secretary of State shall be reimbursed by the requesting party for the expense of providing such service.
- 100.03 Interested parties will submit comments or objections in writing (5 copies) postmarked not later than ten (10) days prior to the hearing date. If no written objections to the proposed regulations are received, it will be assumed by the Hearing Committee that such regulations will be acceptable to all concerned, and the Committee shall declare such regulations in force as of thirty (30) days following the hearing date.
- 100.04 A Hearing Committee shall meet on the assigned date and at the place specified in previous public announcement to hear discussion in support of previously submitted comments. The Committee shall consist of 1. The Commissioner of Agriculture and Commerce, Chairman, 2. The State Chemist, 3. The Director of the Mississippi Agricultural and Forestry Experiment Station, and 4. The Director of the Mississippi Cooperative Extension Service or their designee(2).
- 100.05 All hearings shall be open to all interested parties.
- 100.06 A recorder shall be present at hearings to make a full and accurate recording of the proceedings as needed for any subsequent review.
- 100.07 After all comments and objections, if any, to the proposed regulations have been heard, the Committee will weigh all evidence presented, both orally and in writing. The Committee will decide by a majority vote upon the merits of the objections.

- 100.08 If the Committee decides that one or more objection(s) to the proposed regulations has merit, it will attempt to reformulate the regulations at that time to satisfy the individual or firm raising the objection as well as the majority of the Committee. If this can be done, it may then approve the modified regulation by a majority vote.
- 100.09 All proposed and unmodified regulations approved by a majority of the Committee will be declared in effect and enforceable as of thirty (30) working days following the public hearing date. Notice of such adoption shall be mailed to all parties as shown in subsection 100.02.
- 100.10 All regulations which are modified by the Committee at the hearing will be distributed as in Subsection (b) of the hearing rules, and comments and/or objections to the modified proposed regulation(s) will be required in writing as in subsection 100.03
- 100.11 If no objection to the modified proposed regulation(s) are received within thirty (30) days from the date of their distribution as specified above, such modified proposed regulations will then be declared adopted and in effect and enforceable as of ten (10) days following date of adoption, and notice of same shall be mailed out as prescribed in subsection 100.02 above.
- 100.12 If objection to the modified proposed regulation(s) is received under subsection 100.10 above, the Committee shall set a new date for public hearing of same and proceed as in subsections 100.08 and 100.10 to 100.12.
- 100.13 At the conclusion of the second hearing, the Hearing Committee shall make its decision as to the adoption or rejection of the rule or regulation. If the decision of the Committee is to adopt the regulation, it shall be declared in effect and enforceable as of ten (10) days following the second public hearing. Notice of such adoption shall be mailed to all parties as prescribed in subsection 100.02.

Source: *Miss. Code Ann.* §69-24-27.

Advisory Council Establishment, Composition and Duties.

- 101.01 In accordance with Section 69-24-7 (3) and (4) of the Soil and Plant Amendment Law, the Commissioner and State Chemist do hereby establish an Advisory Council.
- 101.02 The Advisory Council shall be composed of scientists and experts in agronomy, horticulture, soil science, plant physiology, and other related agricultural and biochemical disciplines as needed, as designated to the Commissioner and State Chemist by the Directors of the Mississippi Agricultural and Forestry Experiment Station and the Mississippi Cooperative Extension Service.

101.03 Such Council members will meet with the Commissioner and State Chemist at hearings for promulgation and adoption of Rules and Regulations under this Law, in addition to or in lieu of the Directors of the Mississippi Agricultural and Forestry Experiment Station and the Mississippi Cooperative Extension Service, and at such other times as needed. Among Advisory Council members' duties, but not to the exclusion of others as requested by the Commissioner and State Chemist, are as follows:

1. Provide scientific review, advice, and independent scientific experimental data where available, on all claims made by applicant for registration of specific products under this law at the time of application for registration, or claims subsequently made by the registrant in labeling and advertising.
2. Provide review, advice, and comment on labels and all labeling (including brochures, newsletters, TV, radio, and other advertising, and the like) associated or distributed in the state in any way in connection with any product covered by this law.
3. Provide recommendations and advice on minimum amounts of all soil or plant amending ingredients present or required for efficacy in any product prior to its registration.
4. Provide advice on appropriate methods of inspection, sampling, and analysis of all products which are accepted for registration under this law by the Commissioner and State Chemist.

Source: *Miss. Code Ann.* §69-24-27.

Investigational Allowances.

102.01 A soil or plant amendment shall be deemed deficient if the analysis of the product shows it to be more than ten percent (10%) below its guaranteed minimum amount in any active ingredient other than recognized plant food nutrients prescribed in the Mississippi Fertilizer Law of 1970, *Miss. Code Ann.* §§ 75-47-1 *et seq.*

102.02 Any plant nutrient or element, recognized as a valid plant nutrient under the Mississippi Fertilizer Law of 1970, *Miss. Code Ann.* §§ 75-47-1 *et seq.*, present in the product and claimed on the label of a registered soil or plant amendment, shall be subject to requirements for labeling, minimum guarantees, analysis, and investigational allowances as prescribed in the Fertilizer Law and Regulations.

Source: *Miss. Code Ann.* §69-24-27.

Analytical Methods For Active Ingredients.

103.01 With applications for registration of any soil or plant amendment(s), the registrant shall submit to the State Chemist specific ingredients. The registrant shall supply one or more reproducible analytical method(s) for determining the quantity of

each active ingredient. Such methods of analysis shall be certified by an analytical laboratory acceptable to the State Chemist as having been tested and found to be reliable (relative standard deviation +10%, maximum) for the accurate analysis of the specific active ingredient(s) in question, or adopted by the Association of Official Analytical Chemists (AOAC) as an Official Method.

103.02 The State Chemical Laboratory will test the method(s) submitted by the registration applicant on at least three samples of the product provided by the applicant with the method(s). If the State Chemist or his scientists are unable to make the method perform satisfactorily, registration will be denied.

103.03 Lack of provision of an acceptable analytical method(s) for measurement of the guaranteed quantity of any active ingredient claimed on the label or labeling shall be sufficient to require deletion of all claims on labels and labeling of that active ingredient. No ingredient shall be claimed which cannot be measured by a valid analytical method.

Source: *Miss. Code Ann.* §69-24-27.

To Define Fortified Potting Soil.

104.01 The term fortified potting soil shall mean a potting soil or growth medium for planting use with fertilizer added. It may contain one or more primary or secondary plant nutrients.

104.02 Fortified potting soil shall be registered by brand and grade with the Commissioner of Agriculture and Commerce and State Chemist and shall be subject to inspection, sampling, reporting, etc. as required for any other Soil and Plant Amendment products.

Source: *Miss. Code Ann.* §69-24-27.

Minimum Standards For Soil and/or Plant Amendment Product Scientific Testing to Support Claims.

105 The following procedures have been developed to provide information to applicants with respect to the efficacy standards that will be used to judge data in support of efficacy claims:

1. Objectives.

- a. To field test the effectiveness of a product and thereby obtain a statement on efficacy.
- b. Greenhouse (plant forcing structures) testing must follow the same steps as field trials.

- c. The objective(s) statement must identify the agricultural benefit(s), hereafter referred to as agronomic (inclusive of agronomic, horticulture and silviculture), that will be derived from the use of the product.
 - d. An example of an efficacy claim would be "increases grain yields of wheat". Field trials must be designed to measure the parameter identified in the claim. In this example, wheat yields would have to be measured.
2. Researchers.
- a. Support for efficacy claims should include a minimum of two independent studies in each year of testing, one of which should be conducted by an independent researcher. An independent researcher is one who has no formal affiliation with the applicant. Examples of possible independent researchers include government or industry personnel, as well as private collaborators.
 - b. The researcher(s) must provide adequate evidence of credentials to allow an assessment of their capacity and then of the credibility of the studies completed. Typical minimum credentials might be a Bachelor's or higher degree in agriculture or a related scientific field, and previous experience in carrying out scientifically sound field trials or agriculture product performance. The researcher(s) qualifications must be substantiated by a resume.
3. Treatments.
- a. Field trials must be designed and conducted in a scientifically sound manner.
 - b. The following are examples of treatments that would be the minimum required:
 - i. Application of the test product (final formulation) at the rate and by the method specified on the label.
 - ii. A check or no application treatment. (In some instances, it may be necessary to apply the carrier as an additional treatment.)
 - c. Where label instructions specify the need for modified agronomic practices, the following additional treatments are appropriate.
 - i. The company's recommended agronomic program without the test product(s).
 - ii. The company's recommended agronomic program with the test product(s). In instances where a comparison forms the basis of an efficacy claim (eg. "maintains yield while reducing the need for nitrogen by 40 #/acre), the following additional treatments are recommended.
 - iii. Application(s) of the product or agronomic practice that forms the basis for the comparison. In the example cited above, the nitrogen should be applied at varying rates, (i.e. O, 1/4X, X, 2X, etc.) with and without the product or agronomic practice to form the basis for comparison.
 - iv. In some instances it may be appropriate to also apply a product which exhibits a known effect similar to those being claimed for the test product. It is also recommended that initial field trials include

applications of the test product at varying rates, (e.g. 1/2X, 2X etc.) so that the optimum rate of application can be determined.

4. Duration of Testing. Ideally all tests will be conducted for a minimum of three growing seasons. In cases in which the activity of the product is well-understood, and sufficient scientific rationale exists to predict that the product will be effective on other crops, a single year's data may be sufficient to extend to another crop.
5. Location of Testing. Both the developer and users of the product should be aware of agronomic and climatic factors that will influence its performance. For this reason, the Region (indicated in appendix I), shall be recognized and acceptable as related to Mississippi conditions.
6. Experimental Design.
 - a. All tests must be replicated and randomized in a scientifically recognized manner that will allow for an appropriate statistical analysis of the data. Although the number of replications will vary with the variability in response, a minimum of 4 replications is recommended. The experimental design shall be uniform among sites.
 - b. When applicable and probably with most products, it will be necessary to carry out the appropriate soil and tissue analyses prior to initiating the field trials.
7. Plots or (Greenhouse). Plots must be large enough to allow a meaningful sample to be collected and treatments to be independent from one another. The minimum size of the plot will be dependent upon the crop, the agronomic practice being used and the parameter that is being measured.
8. Analysis of Data and Performance Standards.
 - a. Efficacy will be assessed on the basis of the statistical analysis. A 95% confidence interval is considered significant. Each year, 60% of all trials must show a statistically significant positive response in order to support an efficacy claim. Deviations from these requirements may be permitted where sufficient scientific rationale exists.
 - b. Only those studies carried out in accordance with the label instructions will be accepted and must meet the performance standard. For example, if the label clearly states that the product is not effective in soils where the Ph is below 6, only studies carried out on soils where the Ph was greater than or equal to 6 will be considered when determining the overall performance of the product.
9. Reporting Procedures (Data Required To Support Registration)
 - a. Introduction: The introduction should identify:
 - i. the product claim;
 - ii. the ingredients contained in the product;
 - iii. the active ingredients and the associated guarantees;
 - iv. the suggested mode of action.
 - b. Proposed label: The label shall carry a clear and concise benefit claim and fully describe the manner in which the product is intended for use. In the case of greenhouse application products, the label must show "greenhouse

use only". Further labeling requirements are specified in Section 69-24-7 of the Mississippi Soil and Plant Amendment Law.

- c. Materials and Methods: The description of the experimental procedures shall describe the details of the field trails. The description of the plot (including details on soil types results of initial soil tests, and climatic conditions), the experimental design, the treatments, the agronomic practices used, and the manner in which the samples were collected and assessed are among the details that are considered essential.
- d. Results and Discussion: This portion of the report shall contain the appropriate summaries of the data and statistical analyses as well as the interpretation of the results. An explanation of any anomalies such as missing values should also be provided.
- e. In the case of yield data, results must be corrected to a standard moisture. The percent moisture should be included with the raw data.
- f. The raw data and actual statistical analyses should be provided in appendices.
- g. Literature Cited: All references should be listed.
- h. Additional references, to provide background information or technical specifications, are welcome.

Source: *Miss. Code Ann.* §69-24-27.

Industrial Waste, By-Product, or Co-Products as a Source of Soil/Plant Amendment Products Or Ingredients.

106.01 "Industrial Waste, By-Product or Co-Product" means material derived from an industrial process which may possess properties considered to support claims as a source material for soil or plant amendment products.

106.02 Such industrial waste, by-product or co-product material declared unsafe by the Mississippi Department of Environmental Quality, Mississippi Department of Health or U.S. Environmental Protection Agency shall not be sold, offered for sale, traded, bartered or given away for use on agricultural land and public contact site(s) in this state.

106.03 Such industrial waste, by-product or co-product material, which may possess properties considered to support claims as a source material for soil or plant amendment product, that has been declared safe for use on agricultural land and public contact sites may be considered for permitting and registration by the Commissioner and State Chemist; however, applicants must supply scientific information as specified in Regulation 6 of the Mississippi Soil and Plant Law.

Source: *Miss. Code Ann.* §69-24-27.