



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY

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February 8, 2011

MEMORANDUM CIRCULAR NO. 01-A
Series of 2011

TO : ALL CONCERNED

**SUBJECT : IMPLEMENTING GUIDELINES ON THE CONDUCT OF VARIOUS
LABORATORY ANALYSES AT THE FERTILIZER ANALYTICAL SERVICES
LABORATORY**

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**I. RATIONALE**

Pursuant to the provisions of Section 9 of Presidential Decree No. 1144 and its Implementing Rules and Regulations, the Fertilizer and Pesticide Authority (FPA) promulgated these guidelines for the conduct of laboratory analyses at the FPA Analytical Services Laboratory (ASL) as part of the registration requirements and monitoring of commercial fertilizers, soil conditioner/ amendments, microbial inoculants, fertilizer raw materials, and plant growth regulators prior to their commercialization.

**II. PURPOSE**

The FPA-ASL was established to support the Agency's monitoring and regulatory activities through testing of various fertilizer products and related products, to ensure that these products are of good quality when used for agriculture and environment.

**III. DEFINITION**

**Fertilizer** – any substance, solid or liquid, inorganic or organic, natural or synthetic, single or a combination of materials that is applied to the soil or on the plant to provide one or more of the essential elements to improve plant nutrition, growth yield or quality or for producing a chemical change in the soil which will contribute to the improvement of plant nutrition and growth.





#### **IV. COVERAGE**

This memorandum circular shall apply to all fertilizer products for registration, either new or renewal and provisional or full registration status, and for monitoring purposes of the Agency.

#### **V. PROCEDURE**

##### **1. REQUEST FOR LABORATORY ANALYSIS**

###### **1.1. For Product Registration**

As part of the requirements for new application and renewal of product registration, the product samples for confirmatory analysis, must be submitted to the FPA-ASL and/or to any FPA accredited laboratory.

1.1.1. During the submission of the sample, the applicant should proceed to the Fertilizer Regulatory Services Division (FRSD) and obtain the request for analysis, attached as Annex "A", to be accomplished by the designated personnel. The in-charge personnel will determine the laboratory test parameters required for the confirmatory analysis.

1.1.2. The applicant shall proceed to the Finance Division with the request for analysis to get an order of payment. He/She shall pay the amount specified in the order of payment to the Cashier's Office where the official receipt will be issued.

1.1.3. Upon payment, the applicant shall proceed to the FPA-ASL to submit their fertilizer product sample/s together with the request for analysis from FRSD and the official receipt. The minimum amount of sample for analysis must be 500 grams for solid organic fertilizer, 250 grams for solid inorganic fertilizer, and 250 milliliters of liquid organic and inorganic fertilizers as stipulated in Administrative Order No. 1, Series of 2011, Schedule of Laboratory Fees and Charges for Services Rendered by the FPA, attached as Annex "B".

1.1.4. For any inquiries and/or updates regarding the results of the laboratory analysis of their products, the applicant may inquire or follow-up only from the FRSD. In case a retest of their product is required, the same process must be followed and the client is required to submit a new product sample/s for re-analysis.

## **1.2. For Product Monitoring**

The regional offices of FPA are conducting inspection and monitoring of all fertilizers and related products regularly to ensure that all fertilizers and related products that are distributed and sold in the market are of good quality.

- 1.2.1. The fertilizer samples for product monitoring from the regional offices must be submitted to the Office of the Executive Director (OED). OED will endorse and turnover the samples to the FRSD to handle the evaluation of these samples. The FRSD shall submit these samples to the FPA-ASL or any accredited laboratories for the conduct of testing and analysis.

## **2. CONDUCT OF LABORATORY ANALYSIS**

- 2.1. Upon submission of the sample/s for analysis, FASL personnel will record the submitted sample and the laboratory test parameter(s) to be conducted by the analyst.
- 2.2. The assigned personnel will examine and label the submitted sample with a code used only in the FPA-ASL. The laboratory code is designated as follows: the name of the laboratory-year-month of the receipt of sample in chronological number in the record book (e.g. FASL-2011-03-001)
- 2.3. A Test Parameter Result Form will be prepared for each sample. The physical appearance including the packaging material used will be described and recorded in the said form as depicted in Annex "C" from immediate receipt of the sample in the laboratory.
- 2.4. The laboratory test methods to be conducted for the determination of each nutrients of the product are as follows:



| Test Parameters                     | Approved Test Methods                                      |
|-------------------------------------|------------------------------------------------------------|
| Total Nitrogen (Nitrate-Free)       | Kjeldahl Method<br>Automated Colorimetric Method           |
| Total Nitrogen (Nitrate-Containing) |                                                            |
| Ammoniacal Nitrogen                 |                                                            |
| Nitrate Nitrogen                    |                                                            |
| Available Phosphorus                | Spectrophotometric Method<br>Automated Colorimetric Method |
| Total Phosphorus                    |                                                            |
| Total Potassium                     | AAS Method                                                 |
| Calcium                             |                                                            |
| Moisture Content                    | Oven Dry Method<br>Thermogravimetric Method                |
| Sulfur                              | Gravimetry                                                 |
| Chloride                            | Titrimetry                                                 |
| Organic Matter                      | Titrimetry                                                 |
| Biuret                              | Spectrophotometric Method                                  |
| Gibberellic Acid                    | HPLC Method                                                |
| Paclobutrazol                       | HPLC Method                                                |
| Impurities Determination            | GC/MS Method*                                              |

\*As per client's procedure, depending on the kinds of impurities that need to be detected, subject to the availability of laboratory equipment and chemicals and approval by the head of the laboratory of its analysis.

- 2.5. For test parameters that has two or more approved methods, the applicant/client may select from the available method in the laboratory. In case the applicant/client did not specify any test method to be conducted in his/her analysis, then it is the discretion of the analyst who will perform the experiment as to what approved test method he/she will use in performing the analysis.
- 2.6. The applicant who has an established laboratory procedure for analyzing specific test parameter/s can submit a formal request for such analysis to be performed. However, such request is subject to the availability of laboratory equipment and chemicals to be used and must be approved by the head of the FPA-ASL with the corresponding cost of analysis.
- 2.7. Only the nutrients/ test parameters specified in the request for analysis form will be analyzed in the FPA-ASL. Additional test parameters, if any, shall be requested by the applicant at the FRSD, wherein applicant will follow the same process for requesting the laboratory analysis.

- 2.8. The requested laboratory analysis will be conducted for a minimum of ten (10) to fifteen (15) working days from the date of receipt of sample(s). An additional number of days will be requested for applicant/client who will submit more than ten (10) samples per transaction. Applicants may wish to have their sample be prioritized in the conduct of analysis by paying additional fees specified below.
- 2.9. The analyst/chemist who performed the analysis must write the result/s of his/her analysis in the Test Parameter Result Form affixing his/her signature and the date when the analysis was performed.
- 2.10. Only the aforementioned test parameters will be analyzed by the FPA-ASL unless additional test parameters will be included once another Administrative Order approved by the Secretary of the Department of Agriculture was released.

### **3. PREPARATION AND RELEASING OF LABORATORY TEST REPORT**

- 3.1. Laboratory test report(s) will be prepared once all the test parameters to be analyzed have been performed. The test report code is designated as TR followed by the laboratory code number (e.g. TR-2011-03-001).
- 3.2. The Chief of the FPA-ASL must check the attached print-outs of the instrument readings and/or computation of test results and sign the Test Parameter Result Form, before certifying the laboratory test report(s) to be correct. Once signed, the laboratory test report(s) will be approved by the Deputy Executive Director for Fertilizer. Only two (2) original copies of the laboratory test reports will be signed, where one copy will be retained in the laboratory for recordkeeping.
- 3.3. The other original copy of the laboratory test report will be released by the FPA-ASL only to the assigned personnel of the FRSD who will receive the report. No laboratory test reports will be released to the applicant. In case the applicant needs an original copy of the test report, he/she must submit a formal letter request to the OED for approval of releasing another original copy of the said report. Only test reports that have dry seal are considered to be authenticated.

## **VI. PAYMENT OF FEES**

1. Fees and charges for the laboratory analysis shall be collected per test parameter of the product based on Administrative Order No. 1, Series of 2011, Schedule of Laboratory Fees and Charges for Services Rendered by the FPA.



2. An applicant/client may request for a fast-track laboratory analysis of submitted sample(s) from the FRSD. However, the fees and charges for each parameter will be twice the cost stated in the Administrative Order No. 1, Series of 2011, Schedule of Laboratory Fees and Charges for Services Rendered by the FPA. The laboratory results of the rush analysis will be released after three (3) working days.

#### **VII. REVOCATION CLAUSE**

1. FPA reserves the right to amend, alter, add or delete any part of these regulations, if in the opinion, such alterations, amendments, and additions are reasonable and necessary to maintain the credibility and smooth operation of the FPA-ASL.
2. In the event of such alterations, amendments, and additions, reasonable time shall be given to all client and/or applicant to fully adopt and comply with the altered terms and conditions of these guidelines.

#### **VIII. EFFECTIVITY**

This circular takes effect thirty (30) days from the date of issuance.

Recommending Approval:



**ATTY. GAVINO L. BARLIN**

Deputy Executive Director for Fertilizer

Approved:



**NORLITO R. GICANA, CESO III**

Executive Director