DEPARTMENT OF AGRICULTURE

FPA

FERTILIZER AND PESTICIDE AUTHORITY

FERTILIZER REGULATORY POLICIES AND IMPLEMENTING GUIDELINES

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FERTILIZER REGULATORY POLICIES AND IMPLEMENTING GUIDELINES

FERTILIZER AND PESTICIDE AUTHORITY

Fertilizer Regulatory Policies and Implementing Guidelines

Fertilizer Regulatory Division
FERTILIZER AND PESTICIDE AUTHORITY
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A C K N O W L E D G M E N T

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FOREWORD

The Fertilizer and Pesticide Authority (FPA), an attached agency of the Department of Agriculture was created by virtue of Presidential Decree No. 1144. As a regulatory agency, FPA is mandated to regulate the use of farm inputs particularly fertilizer to ensure its proper and safe use, increase agricultural productivity, protect public health and environment, and ensure its adequate supply at reasonable prices.

In the pursuit of its mandate, the FPA published this "Guidebook on Fertilizer Regulatory Policies and Implementing Guidelines". Through this publication, we hoped that the FPA's vision of a sustained agricultural productivity through the adoption of Good Agricultural Practices (GAP) and Integrated Plant Nutrient Management System (IPNMS) can be better achieved.

This publication will serve as a guide to all fertilizer handlers and stakeholders namely, the Importer, Exporter, Indentor, Manufacturer, Distributor and Dealers among others, in their registration, licensing requirements and operational activities in the conduct of their business in the Philippines.

As we recognize that changes are inevitable to our changing world, we believe that the simplified procedures reflected in this Fertilizer Guidebook can address the needs of the concerned stakeholders particularly the investors in the fertilizer industry sector and contribute in achieving the objectives of the Food Staples Sufficiency Program (FSSP) and the Public Private Partnership Program of the Government.

NORLITO R. GICANA, CESO III
Executive Director

PREFACE

This Guidebook on FPA Fertilizer Regulatory Policies is the first of its kind to be published by the Fertilizer and Pesticide Authority since its creation pursuant to Presidential Decree No. 1144 issued on May 30, 1977. With the global development and free movement of goods specifically fertilizer products, there is a compelling need to harmonize fertilizer policies in order to make it responsive to the needs of the time and to stay in this globally competitive market.

This publication contains seven (7) chapters, namely, (Chapter I) The Fertilizer and Pesticide Authority; (Chapter II) Fertilizer Product Registration; (Chapter III) Licensing of Handlers; (Chapter IV) Fertilizer Movement, Supply and Quality Product Standard; (Chapter V) Fertilizer Information and Statistics; (Chapter VI) Trainings; (Chapter VII) Penal Provisions and Enforcement Action which are all clearly presented and defined for the guidance of the concerned industry participants.

It is hoped that this document could serve as a reference and encouragement to all our stakeholders and prospective investors to further enhance the fertilizer registration process to make it more effective, efficient and transparent. Moreover, we believe that this guidebook could contribute in enhancing the fertilizer business, as well as sustaining the country's productivity and food security.

Chapter I

THE FERTILIZER AND PESTICIDE AUTHORITY

1.1 INTRODUCTION

Fertilizer continues to play an important role in Philippine agriculture due to its significant contribution in increasing crop productivity – FOOD. Fertilizer is needed to produce more food from limited land resources to feed the fast increasing population.

In the early seventies, the Philippine Government launched an agricultural program, promoting self-sufficiency in rice and corn. Because of this, the demand for fertilizer increased. Since there was no control over the fertilizer industry then due to the laissez faire policy, the government created the Fertilizer Industry Authority (FIA) through Presidential Decree No. 135 on 13 February 1973. The FIA's primary functions were to regulate fertilizer prices, distribution, import, export and domestic production of fertilizers.

However, with the easing of fertilizer prices in the international and domestic markets and the Philippines achieving self-sufficiency in rice production in 1977, Presidential Decree No. 1144 was promulgated on May 30, 1977 to create the Fertilizer and Pesticide Authority (FPA) as an attached agency of the Department of Agriculture and abolished the FIA. The agency's regulatory function was extended to the pesticide industry as well. Presidential Decree No. 1144 gave FPA broad powers with absolute control over the fertilizer sector. These powers fall into four categories, namely: *regulatory, monitoring, evaluation, and promotion*.

In 1986, trade liberalization was implemented by the government. The fertilizer trade was deregulated through the following:

a. Removal of procurement control (i.e. determination of import requirements, conduct of bidding and allocation of import volume)
b. Scrapping of the price-setting function of the government
c. Stopping the issuance of FPA Import Permit for Fertilizer

1.2 MANDATE

The FPA is mandated to assure the agricultural sector of adequate supply of fertilizer and pesticide at reasonable prices; rationalize the manufacture and marketing of fertilizer; protect the public from the risks inherent in the use of pesticides; and educate the agricultural sector in the use of these inputs.

FPA has to pro-actively seek ways and means to reduce the costs of fertilizers, pesticides and other agricultural inputs by providing more choices and alternatives to farmers and other stakeholders in the most timely manner through continuous streamlining and rationalizing the rules and regulations, and ensuring that these are relevant in the context of competition for trading, transparency and improvement of local agriculture and global economy as a whole.

1.3 VISION

The FPA's vision is improved quality of life for all Filipinos through increased farm productivity and food production using the necessary fertilizer and pesticide inputs that do not endanger human health and environment on a sustainable basis.

1.4 MISSION

The mission of FPA is to be a catalyst in the empowerment of farmers and fisherfolk by helping them become better informed, more efficient and conscientious in the management of their plant nutrition and crop protection requirements towards conservation of our land and marine resources.

Chapter II

FERTILIZER PRODUCT REGISTRATION

2.1 GENERAL INFORMATION

2.1.1 BASIC POLICIES

2.1.1.1 All fertilizer products, organic or inorganic, raw materials and ingredients for fertilizer, which are imported or produced locally, should be registered with FPA.

2.1.1.2 The registration process carries with it pertinent requirements and presentation of documentary evidence to support claims on the quality of the product and its effectiveness to target crops.

2.1.1.3 The registration process likewise provides suitable guidelines for the registration of all fertilizer products to assure farmers and end-users of their acceptable quality and effectiveness as guaranteed by the manufacturer and/or importer before they are marketed.

2.1.1.4 Registration requirements include the submission of product specification supported by chemical analysis, mode of action, product type and the result of efficacy trials conducted by an accredited and independent researcher. The set of data is evaluated by a registration consultant.

2.1.1.5 With increasing market demand, a wide range of products are provided through

continued production of new grades, brands and types of locally produced and imported fertilizers. Registration of these commercially processed fertilizers is therefore needed to give greater assurance that the quality of each brand is maintained at the specified standards (characteristics and effects) as claimed by the producer or importer.

2.1.1.6 Fertilizer handlers such as importers, distributors, exporters, bulk-blenders and processors should register their products with FPA.

2.1.2 COVERAGE

The following grade, type and classification of fertilizer products and raw materials (based on Philippine Standard) are subject for registration with FPA:

2.1.2.1 **Inorganic Fertilizer**

a. Traditional
b. New Grades
c. Specialty Grades
d. Controlled Release

2.1.2.2 **Organic Fertilizer**

a. Plain Organic Fertilizer
b. Compost/Soil Conditioner
c. Fortified/Enriched Organic Fertilizer

2.1.2.3 **Biological Fertilizer**

a. Microbial Inoculants
b. Genetically Modified Organisms (GMOs)
c. Decomposers

2.1.2.4 **Soil Conditioner / Soil Amendment**

2.1.2.5 **Plant Growth Regulator (Promoter)**

2.1.2.6 **Raw Materials**

2.1.3 DEFINITION OF TERMS

a. **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 nutrients to improve plant nutrition, growth, yield or quality, or for promoting a chemical change that enhances plant nutrition and growth.

b. **Grade** – refers to the minimum percentage of nitrogen (N), available phosphorous (P_2O_5), soluble potash (K_2O) stated in their order and other macronutrients and micronutrients that are present in appreciable amounts i.e. ammonium sulfate (21-0-0), ammonium phosphate (16-20-0) and compound fertilizer (14-14-14).

c. **Plant Macronutrients** – group of essential nutrients needed by plants in large amount.

c.1 **Primary Plant Nutrients** - group of essential nutrients needed by most plants in large quantities. These include readily available forms of *nitrogen, phosphorus, potassium* and/or any combination of these nutrients.

c.2 **Secondary Plant Nutrients** - group of essential nutrients, which are required by most plants in lesser amounts than that of primary nutrients. These include readily available forms of *sulfur (S), calcium (Ca)* and *magnesium (Mg).*

d. Plant Micronutrients – group of nutrients which are essential for plant growth but are required in small amounts. These include readily available forms of iron (Fe)*, manganese (Mn), boron (B), molybdenum (Mo), copper (Cu), zinc (Zn), chlorine (Cl) and cobalt (Co).*

e. Inorganic Fertilizer – any fertilizer product whose major nutrients (NPK) are supplied by inorganic/mineral or synthetic/chemical compounds. It maybe in solid or liquid form and contain considerable amount of at least one of the essential primary macronutrients such as N, P and K; secondary macronutrients such as Ca, Mg and S, and micronutrients.

e.1 **Traditional Inorganic Fertilizers** - include all inorganic fertilizers in solid or liquid form which are water-soluble, fully registered for at least 10 years with FPA, and available in the market and widely used in the country.

e.2 **New Grades** – locally formulated or imported fertilizers with no previous registration with FPA.

e.3 **Specialty Grades** – finished fertilizer products recommended to overcome a specific problem or supply the nutrient need of a specific ornamental, indoor plant, lawn grasses or for any purpose other than growing agricultural food, feed, fiber or other industrial crops.

e.4 **Controlled Release Fertilizer** - provides nutrients slowly throughout the growing season or longer. Most slow release fertilizers are condensation products of urea and aldehydes and coated traditional fertilizers

with sulfur, polymers, nitrification inhibitors etc.

f. Organic Fertilizer - any product of plant or animal origin that has undergone decomposition through biological, chemical or any other process where the original materials are no longer recognizable, free from any pathogens, soil-like in texture, contains not less than 20% organic matter, oven-dry basis and can supply nutrients to plants (Table 2.2, p. 18).

f.1 **Plain Organic fertilizer** – an organic fertilizer material or any decomposed product of plant or animal origin which is not enriched with microbial inoculants, plant growth substances and/or chemical ingredients to increase its nutrient content with total NPK of 5-7%.

f.2 **Compost / Soil Conditioner** - an organic fertilizer material or any decomposed product of plant or animal origin, which is not enriched with microbial inoculants, plant growth substances and/or chemical ingredients to increase its nutrient content to a total NPK of 3-4%.

f.3 **Fortified/Enriched Organic Fertilizer** - any decomposed organic product of plant or animal origin is enriched/spiked with microbial inoculants, plant growth substances and/or chemical ingredients to increase its nutrient content to a minimum total NPK of 8%.

g. **Soil Conditioner / Soil Amendment** - organic or inorganic material, natural or synthetic, that is applied to the soil to modify certain soil physical properties, such as structure, moisture retaining capacity, shrinking and swelling capacity or resistance to crusting, and to improve soil chemical or biological conditions. Examples are polyelectrolytes such as complex vinyl and acrylic, gypsum, diatomaceous earth, vermiculite, perlite, and lime.

h. **Raw Material** - organic or inorganic materials used in the production of intermediate or finished fertilizer products. These include naturally-occurring and processed minerals such as guano, rock phosphate, potash, limestone, dolomite, peat, gypsum, and sulfur and intermediate materials such as superphosphate, phosphoric acid, sulfuric acid, ammonia, urea, ammonium sulfate and other deposits that are found in nature, mined and used in fertilizer production. Raw materials such as polymer, seaweeds and microorganisms are also included in this group.

i. **Foliar Fertilizer** – fertilizer nutrients soluble in water which may be applied directly to the aerial portion of plants. It is the most effective means of fertilizer application when problem of soil fixation exists. The most important use of foliar sprays has been in the application of micronutrients.

j. **Organic Based Foliar Fertilizer** – liquid fertilizer whose solvent contains plant, animal and natural extract that may have carbohydrates, proteins, fatty acids, hormones, and plant growth promoters as claimed by the manufacturer.

k. **Plant Growth Regulator (Promoter)** - any organic or inorganic compound, natural or

synthetic, which in low concentration promotes or modifies physiological response of the plants.

l. **Microbial Inoculants** - biologically active products containing optimum population of one or a combination of active strains of bacteria, actinomycetes, algae, and fungi that are useful in different biological activities, such as N-fixation, decomposition of organic residues and solubilization of some essential nutrients such as phosphorus from the soil.

m. **Decomposers** – are biologically active products containing microorganisms, fungi and earthworms that hasten the decomposition of plant and animal residues into organic fertilizer, compost or soil conditioner.

n. **Brand name** - a term, name or trademark, with logo which may or may not be registered in the Intellectual Property Office (IPO) and used in connection with one or more grades of fertilizer. FPA reserves the right to approve and disapprove product brand name based on the list of products registered with FPA.

o. **Trademark** – any distinctive word, name, symbol, emblem, sign or device or any combination thereof adopted and used by a manufacturer or merchant on his goods to identify or distinguish them from those manufactured, sold or dealt in by others.

p. **Declared Product Composition** - a statement assuring the nutrient contents expressed in terms of the minimum percentage as claimed in the manufacturer's label.

q. **Mixed Compound Fertilizer** - any combination or mixture of inorganic fertilizers where two or more of the materials contain the primary and/or secondary nutrients and micronutrients.

r. **Bulk Fertilizer** - a non-packaged inorganic fertilizer.

s. **Bulk-blended Fertilizer** – customized mix or blended fertilizer obtained by physically mixing various grades of finished fertilizers suitable to the specific needs of the farmer based on his soil analysis.

t. **Heavy Metals** - unordered group of metals, metalloids, and non-metals (Ex. *arsenic, cadmium, chromium, manganese, mercury, lead, selenium, zinc, copper, molybdenum* and *nickel)*, which when present in concentration above the allowable tolerable level as plant nutrient are toxic. As important environmental contaminants/ pollutants, heavy metals can cause recognizable toxic effects or a diminution of amenity and quality of life.

u. **Official Sample** - any sample of fertilizer taken by the FPA personnel in accordance with the provisions of the rules and regulations and designated as representative(s) by FPA.

v. **Ton** - a net weight of 1000 kilograms.

w. **Registrant** - any person who registers fertilizer under the provisions of the rules and regulations on fertilizer.

x. **Person** – includes individual, partnership, association, firm or corporation.

y. **Label** - a legal document written on the container either printed or in graphic forms of any fertilizer product which indicates accurate information about the products for which it is registered. This includes the grade, weight, source or origin and FPA registration number.

z. **Certificate of Registration** - written approval granted to registered products.

aa. **Registered Product** - product approved by FPA with registration number assigned to it.

ab. **Reviewers/Technical Consultants** - persons designated by FPA through a Special Order to use his/her expertise on fertilizer matters.

ac. **Pathogen** - a biological agent that produces disease, e.g. bacteria, fungi, protozoa, virus.

ad. **Biological Fertilizer** - microorganisms that can fix and/or render available any of the essential elements in the air or soil for plant growth.

ae. **Genetically Modified Organisms (GMOs)** - organisms that are modified by biotechnology or recombinant DNA technology. Such organisms include viroids, viruses, cells or whole organisms which may pose hazard to human health and environment.

2.2 PRODUCT REGISTRATION

2.2.1 TYPES OF REGISTRATION

A. **Full Registration** – granted when all administrative and technical requirements are satisfactorily complied with which includes two (2) seasons of efficacy tests with significant results on a representative crop.

B. **Provisional or Conditional Registration –** granted if there is only one season of efficacy test with significant results on a representative crop.

2.2.2 VALIDITY AND RENEWAL OF REGISTRATION

A. Full Registration – registration of a product shall be effective for three (3) years from date of issuance. Application for renewal of registration should be filed within three (3) months before its expiry date. Application for renewal after its expiry date and renewal of inactive full registration maybe allowed only in cases of *force majeure* or fortuitous event which shall be indicated in a notarized petition of the applicant and subject to evaluation by FPA. If ever the petition is granted, the same provided hereunder.

B. Provisional or Conditional Registration - registration of a product shall expire one (1) year from date of issuance. Renewal of the same status for a maximum of two (2) renewals may be allowed only to comply with the requirements to convert to full registration. Any application for renewal of registration shall be subject to a 50% surcharge, if it is filed within one (1) month after the expiry date and to a 100% surcharge if filed beyond one month after expiry date.

2.2.3 REQUIREMENTS FOR REGISTRATION

A. Administrative Requirements

1. Notarized application form, FPA Form PR-L for locally produced fertilizer and Form PR-I for imported product (Annexes 2.1 and 2.2, pp. 139-145).

2. Information to be supplied on the application form shall include the following:

   a. Information about the fertilizer product

a.1 **Brand name** - the name of the product to be sold and to be printed on the label. Superlative and supernatural names, such as *Miracle, Super, Best, Demon,* which imply superiority of the product compared with other products are **NOT** allowed. The company shall submit three (3) sets of brand names for approval by FPA.

a.2 **Type of product** - liquid/foliar, inorganic/organic, etc., based on FPA's definition.

a.3 **Declared Product Composition** - the minimum percentage content of the primary nutrients, secondary nutrients, micronutrients, free acidity or pH and heavy metals (if any) as validated/confirmed by FPA recognized laboratories.

b. Name of Producer/Company/FPA licensed importer, distributor, exporter, processor, manufacturer, and import consolidator.

c. List of materials/raw materials used in the production of the product.

d. Actual production process - brief description with schematic diagram of the production process indicating the percentage of raw material used.

e. Target users/crops – refers the location and specific demographics of the products to be sold and for what crops these are used for.

f. FPA accredited researcher handling the experiment/field test - the name

of the FPA accredited researcher to conduct the efficacy testing of the product.

g. Information on the cost components

B. Technical Requirements (Table 2.1, p. 17)

1. Inorganic Fertilizer

a. Traditional, inorganic fertilizer products

a.1 General Information

a.1.1 Name/address of applicant
a.1.2 Brand name
a.1.3 Guaranteed/declared composition
a.1.4 Certificate of Analysis from FPA recognized local laboratory or Certificate of Analysis from the supplier. Analysis should be done by an FPA recognized local laboratory. In case where no local laboratory is capable to do the analysis, this can be done abroad. The laboratory must be independent, reputable and has the capacity as certified by the Philippine Embassy. Results of analysis may be authenticated by the Philippine Embassy.
a.1.5 Name of supplier and country of origin (imported products)
a.1.6 Size/type of packaging
a.1.7 Description of manufacturing /production process
a.1.8 Source and kind of raw materials

a.2 Sample of the Product (Solid-Inorganic: 250 g to 1 kg, Liquid: 250 mL to 1 L, Microbial Inoculants: 2 pcs of 200 g or 200 mL)

a.2.1 Methods of analysis
a.2.2 Test for heavy metals, if needed

a.3 Label (pp. 49-53 for label description for each kind and forms of fertilizer products and pp. 168-172 for sample label)

a.3.1 For liquid and foliar fertilizer
a.3.2 For solid fertilizers

b. New grades, specialty, and controlled-release inorganic fertilizers.

List of requirements are the same as traditional inorganic fertilizers (Table 2.1, p. 17). In addition, brochures, bioefficacy data and inspection report about the manufacturing plant are required for registration.

2. Organic Fertilizer

List of requirements are the same as new grade of inorganic fertilizers, but 500 g – 1 kg of sample be submitted for the following test (Table 2.1, p.17):

a. Chemical analysis of essential nutrients as claimed by the registrant from FPA recognized laboratory. (Table 2.2, p. 18)

b. Test for pathogens (Table 2.3, p. 18). Claims on the presence of beneficial microorganisms shall also be specified and quantified.

c. Test for heavy metals if raw materials are from sewage sludge, mine tailings, etc. (Table 2.4, p. 18)

d. Test for weed seeds by germination test. Weed seed should be absent but if this is present, weight, population and identification should be done at the expense of the registrant (Table 2.5, p. 18)

3. Biofertilizer / Microbial inoculants / GMOs / Decomposer

List of requirements are the same as with organic fertilizer, but no test for heavy metals and weed seeds is required (Table 2.1).

For microbial inoculants and decomposers, the guaranteed analysis of the inoculant as claimed should be not less than 10^6cfu/mL or 10^6cfu/g. A certificate of analysis of a population of one or a combination of active strains of bacteria, actinomycetes, algae and fungi by FPA recognized laboratory together with two (2) samples of 200 g or 200 mL taken from the same batch should be submitted. One sample will be analyzed for confirmation at any FPA recognized laboratory and the cost of analysis shall be charged against the applicant's account. The remaining sample will be retained at FPA for analysis a month before the expiry date claimed by the manufacturer. The expiry date should be indicated in the label. Test for pathogens will be done too.

For GMOs, materials should pass through the National Committee on Biosafety of the Philippines (NCBP) and FPA will regulate it on a case-to-case basis.

Table 2.1 Requirements For Fertilizer Product Registration

DATA REQUIRED	TYPE OF FERTILIZER							
	Inorganic			Organic				
	Traditional	New Grade/ Specialty/ Controlled Release	Bulk-Blended Compound[a]	Organic/ Compost	Biofertilizer Microbial Inoculants/ GMOs[b]	Soil Conditioner	Plant Growth Promoter	Raw Materials
1.0 General Information								
1.1 Name/address of applicant	√	√	√	√	√	√	√	√
1.2 Brand name	√	√	√	√	√	√	√	√
1.3 Guaranteed/declared composition	√	√	√	√	√	√	√	√
1.4 Certificate of guaranteed analysis from the supplier. Local analysis from FPA recognized laboratory[c]	√	√	√	√	√	√	√	√
1.5 Name of supplier and country of origin (imported products)	√	√	√	√	√	√	√	√
1.6 Size/type of packaging	√	√	√	√	√	√	√	√
1.7 Description of manufacturing/production process	√	√	√	√	√	√	√	√
1.8 Source and kind of raw materials	√	√	√	√	√	√	√	√
1.9 Material Safety Data Sheet (imported products)	√	√	√	√	√	√	√	√
2.0 Sample of the Product								
2.1 Weight of sample Organic: 500 g-1 kg, Inorganic: 250 -500 g, Liquid: 250 mL-1L, Microbial Inoculants: 2 samples of 200g or 200 mL	√	√	√	√	√	√	√	√
2.2 Method of analysis	√	√	√	√	√	√	√	√
2.3 Test of pathogens	x	x	x	√	√	x	x	x
2.4 Test for heavy metals	√	√	√	√	x	√	x	√
2.5 Test for weed seeds	x	x	x	√	x	x	x	x
3.0 Label[j]								
3.1 Liquid and foliar fertilizer	√	√	√	x	x	x	√	√
3.2 Organic and other solid fertilizers/soil conditioner	√	√	√	√	√	√	√	√
4.0 Brochure	x	√	√	√	√	√	√	x
5.0 Bioefficacy data (with endorsement from FPA Field Officer/s)	x	√	x	√	√	√	√	x
6.0 Inspection of the fertilizer manufacturing plant	x	√	√	√	√	√	√	x

GMOs = Genetically Modified Organisms

a - If it is bulk-blended using traditional inorganic fertilizer, bioefficacy test data are not needed for registration x - not needed

b – Genetically Modified Organisms **c –** If submitting a Certificate of Analysis which was done abroad, this should be certified/authenticated by Philippine Embassy in that country

Table 2.2 Specifications of Plain/Fortified/Enriched Organic Fertilizer and Compost or Soil Conditioner

Properties	Plain Organic Fertilizer	Soil Conditioner or Compost	Fortified/Enriched Organic Fertilizer
Total NPK	5-7%	3-4%	8% minimum
C:N	12:1	12:1	12:1
Moisture content	$\leq$ 35%	$\leq$ 35%	$\leq$ 35%
Organic matter	$\geq$ 20%	$\geq$ 20%	$\geq$ 20%

Table 2.3 Test for Pathogens for Organic Fertilizer/ Soil Conditioner

Pathogens	Allowable Level
Fecal streptococci	$< 5 \times 10^3$/g compost
Total coliforms	$< 5 \times 10^2$/g compost
Salmonella	0
Infective parasitic	0

Table 2.4 Allowable Level of Heavy Metals in Organic Fertilizer/ Compost/Soil Conditioner

Heavy Metal	Maximum Allowable Level in Compost[1] (mg/kg dry weight)
Zinc (Zn)	1000
Lead (Pb)	750
Copper (Cu)	300
Chromium (Cr)	150
Nickel (Ni)	50
Mercury (Hg)	5
Cadmium (Cd)	5

1 EEC, 1986

Table 2.5 Presence of Weeds at 30 and 60 DAT[a] or DAS[b]

Weeds	Density (no./m^2)		Weight (g/m^2)	
	30 DAT	60 DAT	30 DAT	60 DAT
Grasses				
Broadleaves				
Sedges				

a – Days after transplanting
b – Days after seeding

4. Soil Conditioner / Soil Amendment

List of requirements are the same as new grade of inorganic fertilizers (Table 2.1)

Tests for pathogens and weed seeds are not required. However, for lime/gypsum as amendment, the following additional information are required.

a. Particle size distribution, % particle size passing through 60, 40, 20, and 10 mesh sieve
b. Percent active compound ($CaCO_3$, $MgCO_3$)
c. Neutralizing value ($CaCO_3$ equivalent, %)
d. Acidifying value ($CaSO_4$), and
e. Active ingredient/component be analyzed if needed.

5. Plant Growth Regulator (Promoter)

List of requirements are the same as new grade of inorganic fertilizer, but no heavy metals test be required (Table 2.1). Bio-efficacy data from foreign countries can be evaluated for temporary approval of registration.

The following physical and chemical properties of the product and Material Safety Data Sheet (MSDS) should be provided:

a. Chemical composition of the technical (raw material) and commercial product, stating impurities and inert ingredients
b. Chemical name of the active ingredient
c. Chemical structure
d. Flammability
e. Volatility
f. Stability, and
g. Toxicological requirements (for synthetic plant growth regulator)

g.1 Acute oral toxicity
g.2 Acute dermal toxicity

6. Raw Materials

List of requirements are the same as Traditional Inorganic Fertilizers, but no brochure is required (Table 2.1).

Bioefficacy test and plant inspection are not required. Test for pathogens and weed seeds are also not required. However, if the material is wastewater, it has to conform with the wastewater quality/characteristics for re-use for irrigation and fertilization as shown in Annex 2.3.

C. Renewal of Registration for all Fertilizers

1. Notice of changes on items 1.4 (Certificate of guaranteed analysis from supplier and local analysis from FPA recognized laboratory), 1.6 (Size and type of packaging), 4.0 (Brochure); and

2. Product sample, at least 250 g to 500 g for inorganic, 500 g to 1 kg for organic, and 250 mL to ½ liter for liquid and for microbial inoculants and decomposers, 2 pcs. of 200 g or 200 mL for confirmatory analysis.

2.2.4 DECLARED PRODUCT COMPOSITION

The composition of the fertilizer material with respect to its minimum essential nutrient content shall conform with the declared product composition which shall be indicated in the label of the package. For inorganic fertilizer, the permissible deviation from the declared product composition shall be plus or minus two percent (2%) of the declared percentage content of each of the major nutrients. For organic fertilizer, the permissible deviation shall be plus or minus five percent (5%) of the minimum requirement.

2.2.5 BIOLOGICAL AND EFFICACY DATA GENERATION

A. General Information

Bioefficacy data generation is a mechanism to support claims on the effectiveness of a fertilizer to supply the major and/or minor nutrients needed by the plants for growth and/or reproduction.

Traditional inorganic fertilizers produced from raw materials whose major nutrients (N-P-K) are known to be completely available to the plants are exempted from bioefficacy data generation. These raw materials include ammonium sulfate, ammonium chloride, urea, ammonium phosphate, superphosphate, potassium phosphate, potassium chloride, and potassium sulfate. (Table 2.6, p.27)

For traditional organic fertilizer, the product is fully registered with FPA and in the market for 7 years, tested in any of three major crops such as rice, corn and sugarcane or other three (3) crops for 2 seasons each.

Bulk-blended fertilizers using traditional inorganic fertilizers are also exempted from bioefficacy data generation. These are urea, ammonium sulfate, ammonium chloride, ammonia and sulfuric acid, potassium nitrate and calcium nitrate for nitrogen sources. For potassium sources, they include the following: potassium sulfate and potassium chloride; and for phosphorus sources, di-ammonium chloride, ammonium phosphate sulfate (16-20-0), ordinary superphosphate, triple superphosphate, mono-ammonium phosphate, phosphoric acid, rock phosphate and Triple 14. For other nutrients such as magnesium and calcium, magnesium sulfate, agricultural lime and dolomites, and for zinc source, zinc sulfate is among the list.

To help in solid waste management, utilization of the compost or organic fertilizer coming from farm, household or agricultural market waste should be encouraged. However, the efficacy test of the organic fertilizer is still a requirement for its registration.

B. Experimental Use Permit

Experimental Use Permit (EUP) (Annex 2.4) shall be applied for and approved by FPA before any bioefficacy field test is conducted to generate the data required for registration. The applicant should see to it that the test meets the standard protocols for efficacy testing. Data from studies conducted without prior approved EUP will not be accepted. All experiments shall be conducted by FPA-accredited researchers. Registrants are free to choose a researcher within their financial capability.

Application for EUP must be submitted one (1) month before conducting the actual test. The applicant shall be notified of the approval/disapproval of his application within fifteen (15) days after the receipt of application. Timetable for EUP processing for registration is shown in Figure 2.1.

The volume of product to be imported for EUP shall be computed based on the following specific information:

a. Product classification (Table 2.1, p.17)
b. Crop(s) (Table 2.8, p. 56 and Annex 2.5, p. 149-159)
c. Total area covered by trial
d. Total amount of product needed
e. Inclusive dates for the duration of trial
f. Proposed treatment & method of application
g. Location of experiment (enclose map of location)

h. Name of researcher/accreditation number
i. Address of Research Institute/Farmer's field

The EUP is valid only for one (1) growing season for testing a crop. The EUPs period of coverage may be extended upon request provided the reasons are acceptable.

The FPA-accredited researcher shall be allowed to conduct five (5) experiments at a given time. However, FPA will monitor closely the number of simultaneous trials (number and locations) actually conducted by each researcher so as not to sacrifice the quality of trials. An FPA-accredited researcher belonging to a private firm is not allowed to conduct efficacy trial for his company.

C. Efficacy Test Protocol

In the conduct of efficacy tests, the following protocol shall be strictly satisfied:

1. Experimental Condition

The bioefficacy test of the new product should be tested on the target crop for which it will be marketed. This test will also serve as technology-demonstration for farmers.

a. Experimental site - For good responsive results, trials may be allowed in areas other than experimental stations except those owned by registrant. Farmer's field will be inspected and approved by FPA and must be accessible for monitoring.

a.1 Description of specific fertilizer and crop history. Validation of these data can be done by interview.
a.2 Soil analysis before experimentation. Soil depth shall

depend on the kind of root system of test crop.

a.3 Location, soil type, bulk density, porosity, topography, hydrology (water table), water quality, slope, and position in topo-sequence.

The trial conditions should be laid out in either irrigated or non-irrigated field depending on the cultivar/crop used.

- For irrigated crops, source of irrigation water, frequency of irrigation and depth of water at each stage shall be recorded.
- For non-irrigated/upland crops, physical properties such as bulk density, porosity, weed conditions, etc. shall be recorded.

Recommended rate of inorganic fertilizer should be based on soil analysis of the site and Minus One Element Technique (MOET) if for irrigated soil as Zn and S deficiencies are getting widespread. Application of N fertilizer at later stage of rice crop should be based on Leaf Color Chart (LCC) to avoid excessive application of fertilizer.

b. Selection of crop - Crop must be of variety commonly grown in the region.

c. Design and layout of the trial and other cultivation management required

The trial design should determine the statistical analysis required of the fertilizers that are to be used. They should be applied uniformly to all plots. Precise data on application should be given.

d. Plot size

Net plot size depends on target agricultural produce (crop/fish), as follows:

Produce	Plot Size (m^2)
A. Crops	
1. Lowland Rice	16-20
2. Upland Rice	16-25
3. Corn and other upland cereals	16-25
4. Vegetables (leafy, fruiting, cole, bulb)	10-16
5. Legumes (field, vegetable)	16
6. Cucurbits	16
7. Root crops	16
8. Forage	16
9. Turf	2.5 (fairway) 3.6 (greens)
10. Sugarcane	5 x 7 = 35 or 6 x 9 = 54
11. Mango[a]	one fruit-bearing tree per treatment per replication using 4 quadrants x 4 replications (1 x 4 x 4).
12. Ornamentals	3 plants in 5 sampling sites per plot of at least 16 m^2 or per treatment per replication x 3 replications (3 x 5 x 3).
13. Tobacco	26
B. Fish	
14. Fishpond	500 m^2 per treatment x 2 or more replications

[a] Four quadrants per tree, if possible, with sampling units of 25 randomly selected buds/quadrant or a total of 100 flowering buds per tree. If not, state the sampling units.

e. Replications - Treatments should be replicated at least 3 times provided the error degrees of freedom are at least 10.

f. Treatments - Description of product and standard to be tested and the treatments must be able to give information on:

f.1 Test product(s) - The formulated product under investigation.

f.2 Reference Products – It must have similar nutrients as those present in the test products. For example, if the test product is single fertilizer, the reference product must be 45-0-0 or 21-0-0 and the like.

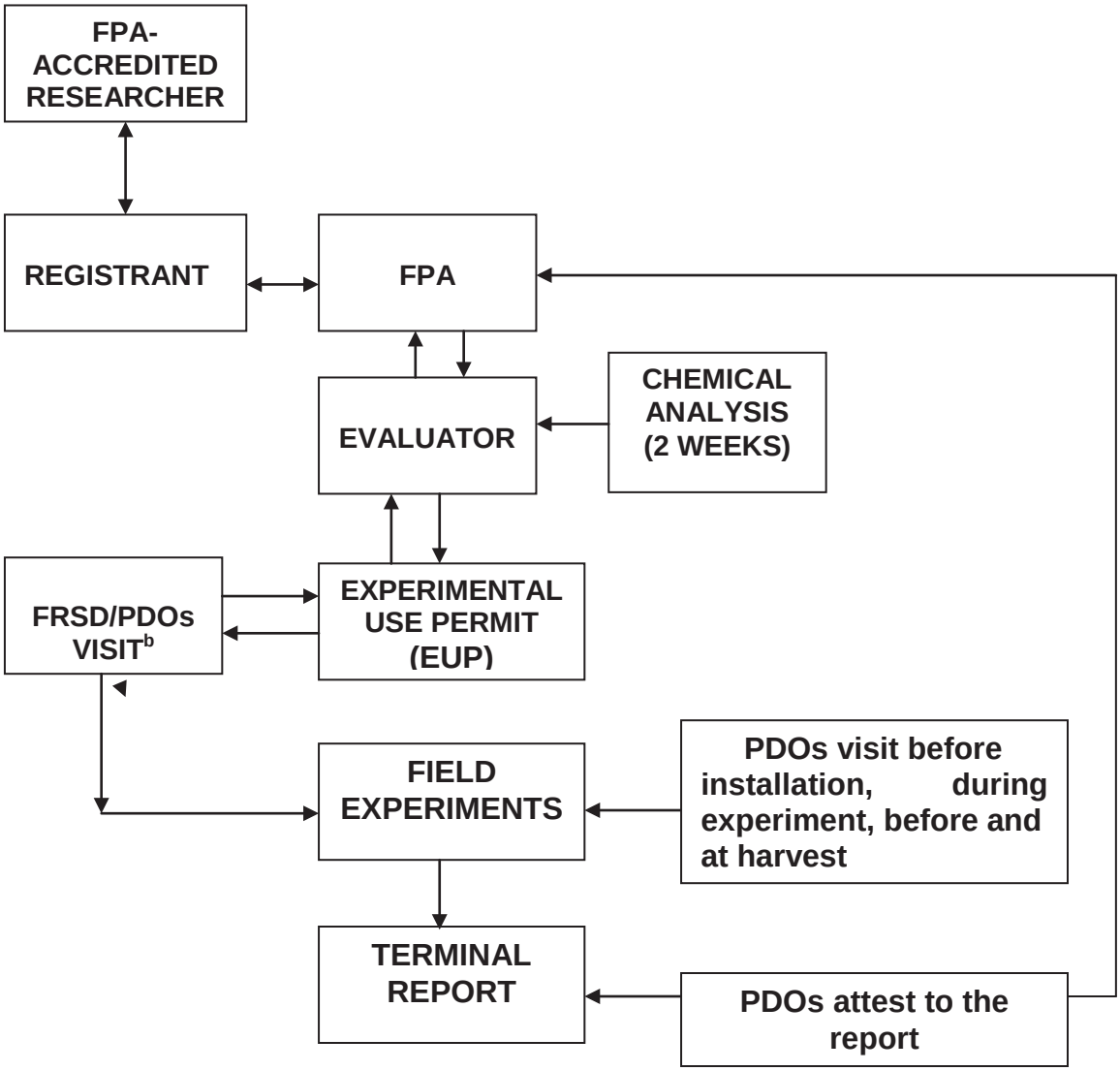
Products accepted as traditional fertilizer such as 18-46-0, 16-20-0, single element fertilizer such as urea (46-0-0), Ammonium sulphate (21-0-0), or Single Superphosphate (0-18-0), Muriate of potash (0-0-60), or Sulphate of potash (0-0-52) or any fertilizer products found effective for 10 years.

f.3 Mode, type, and time of application - Application should comply with Good Agricultural Practices (GAP). The type and time of application will normally be specified in the (proposed) label. The date of each application should be recorded. All activities such as purchase of all inputs and application rate, time of application should be recorded in the logbook for traceability (Annex 2.6).

Table 2.6 Traditional Inorganic Fertilizers / Raw Materials That Do Not Require Bioefficacy Data Generation

Inorganic fertilizer / raw materials	Composition			
	Nitrogen (N) %	Phosphate (P_2O_5) %	Potash (K_2O) %	Other Nutrients %
Agricultural lime				45-77 (CaO)
Ammonia (anhydrous)	82	0	0	
Ammonium chloride	25	0	0	
Ammonium phosphate sulfate	16	20	0	15(S)
Ammonium sulfate	21	0	0	24(S)
Calcium nitrate	15.5	0	0	27(CaO)
Diammonium phosphate	18	48	0	
Magnesium sulfate				25(MgO)
Monoammonium phosphate	11	48	0	
Ordinary superphosphate	0	20	0	
Phosphoric acid				as declared
Potassium chloride	0	0	60	
Potassium nitrate	13	0	45	
Potassium sulfate	0	0	50	18(S)
Rock phosphate				as declared
Sulfuric acid				as declared
Tobacco grade	6	9	15	
Triple 14	14	14	14	
Triple 16	16	16	16	
Triple superphosphate	0	46	0	
Urea	45	0	0	
Zinc sulfate				23-36 (Zn) 11-18 (S)
Dolomite	-	-	-	30 (CaO), 20 (MgO)

Figure 2.1 Flowchart For EUP[a] Processing



[a] Experimental Use Permit

[b] Fertilizer Regulatory Services Division (FRSD) will inform the concerned Project Development Officers (PDOs) about the efficacy test for field visit and inspection.

g. Mode of assessment, recording, and measurements

h. Meteorological and edaphic data

This should include at least precipitation and temperature. Any significant change in weather should be noted. All data should preferably be recorded on the trial site, but may be obtained from a nearby meteorological station throughout the trial period, extreme weather conditions, such as severe or prolonged drought, heavy rains, typhoons that will likely influence the results should be reported.

i. Efficacy Test Results

Efficacy test results shall be evaluated based on the approved experimental use permit to ensure that the approved protocols and treatments are followed. The data for showing the effectiveness of the new products should be statistically significant over the control. The terminal report shall be written by the researcher within one (1) month after the harvest of the crop. This shall be endorsed by the FPA field officer (PDOs) in the area before the registrant/owner of the data of the new product submits to FPA Central Office.

j. Treatment Protocols

j.1 Granular and Soil-Applied Inorganic (N.P.K.)

1. Control
2. Recommended rate (RR) based on soil analysis using inorganic traditional (reference) fertilizer

3. ½ RR (inorganic)
4. ½ RR (inorganic) + RR of new fertilizer product
5. RR of new fertilizer product
6. RR (inorganic) + RR of new fertilizer product

j.2 Soil and Foliar-Applied Liquid Fertilizer (N.P.K.)

1. Control
2. RR (reference fertilizer) (inorganic)
3. ½ RR (inorganic)
4. ½ RR (inorganic) + RR of new product and frequency of soil/foliar liquid fertilizers
5. Full soil/foliar (RR) of the new product
6. RR (inorganic) + RR of new fertilizers product

j.3 Fertilizers for Fishpond

1. Control (Farmer's practice)
2. RR (inorganic fertilizer)
3. RR of new product *

j.4 Soil Rejuvenator for Fishpond

1. Control
2. RR of inorganic
3. T_2 + RR of soil rejuvenator *

* If liquid fertilizer, e.g., liters based on volume of water in a treatment plot

j.5 Biofertilizers/Organic Fertilizers

1. Control
2. RR (inorganic) based on soil analysis
3. ½ RR (inorganic)

4. ½ RR (inorganic) + RR biofertilizer or organic
5. RR biofertilizer or organic
6. RR (inorganic) + RR biofertilizer or organic

j.6 Foliar/Soil applied micronutrients

1. Control
2. RR of N-P-K (inorganic) based on soil analysis
3. RR (inorganic) + 0.5 RR of new product
4. RR (inorganic) + RR of new product
5. RR (inorganic) + 1.5 RR of new product
6. RR of new product

j.7 Mango Flower Inducers

1. Control (water only)
2. RR of standard material commonly used by farmers in the area or KNO_3 or other registered mango flower inducer for the past 2 years
3. 0.5 RR of new inducer*
4. RR of new inducer
5. 1.5 RR of new inducer

* Treatments nos. 3 and 5 can be optional.

j.8 Flower Inducer/Plant Growth Promoting Material other than those of Mango

1. Control (water only)
2. RR inorganic/traditional fertilizer
3. RR of new product
4. RR (inorganic) + RR of new product

5. RR (inorganic) + RR (reference plant growth promoter)

* The mode, type, and time of application should be based on the manufacturer's recommendation.

j.9 Soil Amendment/Conditioner *

1. Control
2. RR of N-P-K using traditional fertilizer
3. RR (inorganic) + 0.5 RR of amendment
4. RR (inorganic) + RR of amendment
5. RR (inorganic) + 1.5 RR of amendment
6. RR of amendment

* Recommended data for efficacy test (growth and yield, change in the physical & chemical properties as claimed by manufacturer).

j.10 Decomposers

1. Control
2. RR traditional decomposer registered with FPA
3. RR new decomposer

k. Parameters to be gathered on Target Crop

Appropriate sampling techniques for data gathering should be followed. The parameters to be gathered for each crop are discussed in the following paragraph and should also be described in

the terminal report of the efficacy test results.

k.1 Lowland Rice

a. Plant data before harvest

1. Average plant height in cm. 30 days after transplanting (DAT). Measure from 16 hills taken from 4 corners, 4 hills per corner after discounting the border rows. Measure from base of plant to the height of the tallest leaf. Take the average. Tag the 16 hills.
2. Tiller count at 30 DAT. From the tagged 16 hills, tiller count will be recorded and transformed to number of tillers per m^2. The area occupied by the 16 hills is 0.64 m^2.
3. Weed weight, density and classification at 30 DAT/60 DAT: get weed weight and count and classify according to grasses, broadleaves and sedges from 0.5 m^2 quadrant from 4 reps/plot.

b. Plant data at harvest

1. Average plant height, in cm. From the tagged 16 hills, measure the height from the base of

plant to the tip of the highest panicle.

2. Tiller count (productive and unproductive). Get the count from the tagged 16 hills.

3. Panicle count. Count the panicles from the tagged 16 hills and this will represent the number of productive tillers. The count will likewise be transformed to panicle count per m^2.

4. Weight straw at harvest from 5 m^2 per plot in kg. From the harvest area of 5 m^2, weigh the straw after threshing.

5. Grain yield in tons/ha. Compute the yield from dry weight of filled grains from 5 m^2 harvest area. Convert the yield to tons/ha with corrected moisture content of 14%.

k.2 Upland Rice

1. Straw weight - Cut close to the ground and weigh straw after threshing.

2. Grain weight - Weigh the threshed grains as fresh then dry, weigh

again. Convert the yield to tons/ha corrected for moisture content at 14%.

3. Weed weight, density, and classification at 30 days after seeding (DAS)/60 DAS: get weed weight and count and classify according to grasses, broadleaves and sedges from 0.5 m^2 quadrant from 4 reps/plot.

k.3 Corn

1. Number of ears per harvest area per plot.

2. Weight of fresh ears with husks per harvest area.

3. Weight of fresh ears without husks per harvest area.

4. Dry weight of kernel, in tons/ha. Weigh one (1) kilo of corn kernel, sun-dry for 3 days and get the dry weight for the estimation of kernel yield at 14% moisture.

5. Biomass weight at harvest.

k.4 Vegetables

1. **Leafy Vegetables:** pechay, lettuce, celery, upland kangkong, mustard, Chinese cabbage, head cabbage, saluyot, alugbati, spinach and other leafy vegetables

   a. **Marketable yield of plants in tons/ha.** Weigh all the marketable plant parts from harvest area. Convert the yield in tons/ha.

2. **Fruiting Vegetables:** eggplant, tomato, ampalaya, pepper, okra, cucumber, squash, upo, patola and other similar crops.

   a. **Number of fruits/ha.** Harvest all marketable and ripe fruits from harvest area and count. Total all yield data per picking schedule.

   b. **Weight of fruits in tons/ha.** Weigh harvested fruits from harvest area and record total yield from every picking schedule. Compute the total yield in tons/ha.

3. **Cole:** cabbage, cauliflower, and broccoli (Flower Vegetables)

   a. **Weight of marketable curd (cauliflower) and**

bud cluster (broccoli), in tons/ha. Pick only marketable size curd or bud cluster, weigh and record total yield from every picking schedule.

4. Bulb Vegetables: garlic, ginger, onion or leek

4.1 Garlic

a. **Average plant height one (1) month after planting**. Measure plant height from 10 random hills, get the average.

b. **Fresh weight of marketable bulbs in tons/ha.** Harvest bulb from harvest area and convert yield to tons/ha.

c. **Dry weight of bulbs, in tons/ha.** Dry the harvest from the area then weigh. Convert yield to tons/ha.

4.2 Ginger

a. **Number of tillers from 1.0 or 1.5 m^2.** Count the no. of tillers from 2 rows with 5 hills/row in the middle of the harvest area.

b. **Weight of rhizomes, in tons/ha.** Weigh rhizomes after removing the soil from the harvest area and convert to tons/ha.

4.3 Onions/Leek

a. Plant height of 10 plants/plot at 2 months after planting

b. **Fresh weight of bulbs in tons/ha.** Harvest all bulbs/clusters from the harvest area and convert to tons/ha.

c. **Dry weight of bulbs in tons/ha.** Dry the bulbs and weigh. Compute the yield in tons/ha.

k.5 Legumes:

1. **Field Legumes:** cowpea, peanut, soybean, and mungbean.

1.1 Cowpea

a. **Fresh weight of matured pods, in tons/ha.** Harvest the pods from the harvest area and convert to tons/ha.

b. **Dry weight of pods, in tons/ha.** Dry the

pods and shell, convert yield to tons/ha.

c. **Weight of shelled beans, in tons/ha.** Shell the dry pods and convert yield to tons/ha.

1.2 Soybean and Mungbean

a. **Nodule count from 10 sample plants**. Dig/pull out plants from within the harvest area and count the nodules. The effective nodules are in the primary roots.

b. **Fresh weight of matured pods, in tons/ha.** Harvest pods from the area and weigh. Convert yield to tons/ha.

c. **Bean yield, in tons/ha.** Dry the pods and shell. Convert yield to tons/ha.

1.3 Peanut

a. **Fresh weight of pods, in tons/ha**. Harvest the pods from the area. Weigh and convert yield to tons/ha.

b. **Weight of shelled peanut, in tons/ha.** Shell the pods and weigh. Convert yield to tons/ha.

2. Vegetable legumes: string beans/pole sitao, cowpea, sweet pea, lima beans, kadios

2.1 Sweet Pea

a. **Fresh weight of tender pods, in tons/ha.** Harvest the tender pods from the area and weigh. Convert yield to tons/ha.

2.2 String beans/Pole Sitao

a. **Fresh weight of green vegetable stringbean in tons/ha.** Harvest during several picking schedule only marketable green vegetable stringbeans from the harvest area and weigh. Total all weights and convert yield to tons/ha.

k.6 Cucurbits - cucumber, melon, watermelon

1. Cantaloupe or Rock melon

a. **Average diameter of fruit, in cms.** Get 10 sample fruits and measure the circumference.

b. **Number of fruits/ha.** Count the number of marketable fruits from harvest area and convert to hectare basis.

c. **Weight of fruits, in tons/ha.** Weigh the fruits every picking schedule and total the weight. Convert to tons/ha.

2. Watermelon/Melon

a. **Average length of vines, in cms.** Measure length of vines from 4 hills within the harvest area and get the average.

b. **Number of fruits/ha.** Count the number of fruits from harvest area and convert to per ha basis.

c. Weight of fruits.

d. Diameter of fruits.

k.7 Root crops - cassava, gabi, taro, irish or white potato, sweet potato, yam, etc.

1. Cassava

a. **Weight of storage roots in tons/ha.** Clean the storage roots from the harvest area, removing adhering to the storage roots.

Weigh and convert yield to tons/ha.

2. Gabi

a. **Weight of corms in tons/ha.** Harvest the corms from the harvest area and clean. Weigh the corms and convert yield to tons/ha.

b. Percent of the big and small corms.

3. White Potato

a. **Total weight of tubers, in tons/ha.** Weigh the tubers from the harvest area after cleaning and convert yield to tons/ha.

b. Weight of marketable tubers.

4. Sweet Potato

a. **Weight of "fleshy or storage roots" or sweet potato, in tons/ha**. Weigh the marketable roots from the harvest area after cleaning. Convert yield to tons/ha. Classify the yield into good, poor and rejects.

5. Singkamas (turnips)

a. **Weight of "singkamas" in tons/ha.** Wash "singkamas" to remove soil/dirt. Air-dry or wipe and weigh it from the harvest area. Convert yield to tons/ha.

6. Yam

a. **Weight of corms in tons/ha.** Harvest the corms from harvest area and clean. Weigh the corms and convert yield to tons/ha.

b. Percent of the big and small corms

k.8 Forage

a. **Herbage yield.** Harvest herbage from 0.5 m^2 quadrant, dry and weigh

b. **Plant height.** Measure height of forage from 6 sampling sites then get the average.

k.9 Turf

a. Three (3) Clipping yields 3x a week for 12 weeks (fairways) in kg/25 m^2, then get the average.

b. Three (3) Clipping yields 3x a week for 12 weeks (greens) in g/m^2, then get the average.

k.10 Sugarcane

a. Sugarcane yield in kilobag per ton cane (LKG/TC) and ton cane per hectare (TC/ha).

k.11 Mango

a. Number of days from chemical induction to 50% flower bud emergence and time of fruiting (Table 2.8). Sampling area: one fruit bearing tree per treatment per replication using 4 quadrants/fruit bearing tree x 4 replications (1 tree x 4 quadrants x 4 reps).

   For one quadrant, if possible 25 buds may be randomly selected. Since 4 quadrants/tree shall be sampled, a total of 100 buds/tree/ treatment shall be taken. If not possible, state the number of buds sampled. Four replications per treatment will be sampled.

b. Intensity of flowering to be recorded at full bloom.

c. Number of fruits per panicle at thumb size (45-50 days after

flowering initiation (DAFI)) and egg size (65 DAFI).

d. Fruit yield/tree (weight, number and size) at harvest time.

d.1 Mean weight of fruit per panicle.

d.2 Marketable fruit classified according to weight from Class 'A' to 'C'. The range of weight is greater than 300 g for Class A or large, 250-299 g for Class B or medium and 200-249 g for Class C or small, 100-148 g for Class D or very small.

d.3 Unmarketable fruit maybe any class but with defects (disease, insect damage, physical injuries and physiological disorders).

d.4 Sweetness (optional).

Table 2.7 Criteria for Flower Intensity Evaluation

Score	Intensity	Description
1	None	No flower
2	Poor	Few flowers or sporadic flowering on tree canopy; up to a maximum of 25% is covered with flowers
3	Fair	About 25 to 50% of tree canopy has flowers
4	Moderate	Many flowers but not all parts or an aggregate of 50 to 75% of the canopy has flowers
5	Excellent	Numerous flowers all over or in practically all parts of the canopy

k.12 Ornamentals - Yield and growth.

Three (3) plants in 5 sampling sites per plot or treatment per replication (3 x 5 x 3) or 2 plants per pot with 6 replications per treatment (2 x 6 x 3)

1. Cut flower

a. Intensity of flowering/ rooting

b. Number of days from chemical induction to flowering or rooting

c. Number of flowers per plant or roots/plant

d. Quality of flowers according to class 'A' to 'C'

2. Foliage

a. Number of leaves per plant and/or per pot

b. Size of leaves per plant and/or per pot

c. Weight of leaves per plant and/or per pot

d. Quality of foliage leaves

3. Indoor plants

a. Number of leaves per plant and/or per pot or number of flowers per plant and/or per pot

b. Weight of leaves per plant and/or per pot

c. Size of leaves per plant and/or per pot

d. Quality of leaves or flowers

k.13 Tobacco

a. Cured leaf yield – cured leaves from 20 sampling plants

b. Physical quality – leaf quality characterized by the grade distribution (high, medium and low).

c. Crop Value – cured leaves are graded and weighed according to the grade standard and be given price per grade

d. Chemical Quality – nicotine reducing

sugar and chloride contents of cured leaves be determined.

k.14 Fishpond - Initial levels of N,P,K, O.M. and pH of pond soil.

Design: CRD
Replication: 2 or more if possible
Pond size: $\geq$ 500 m^2
Stocking Density:
- 3,000 fingerlings/ha.
- 3 tilapia/ m^2 of fish pond

a. Plankton count/unit area before putting the fingerlings for soil rejuvenator if possible.

a.1 Plankton count for soil rejuvenator if possible

a.2 Fish weight of sample size ($\geq$ 10% of population)

b. Several periodic samplings for weight data until harvest

b.1 Early maturing fish: bi-weekly until application of supplementary feeds.

b.2 Late maturing fish (2^{nd}, 4^{th}, 8^{th}, & 16^{th} week) or until application of supplemental feeds.

D. Labeling Requirements

The label is a legal document and very important in packaging and marketing a fertilizer product. Information on the label provides the seller and the buyers with the safe and effective use of the product for which it is registered.

General Consideration in Labeling (Liquid/Specialty Fertilizer):

a. All information contained in the label must be written legibly, in English and/or Filipino. All information must be printed in a font size that would be legible from a normal distance without the aid of the magnifying glass.

b. A total of three (3) proposed labels must be submitted. Its approval will be simultaneous with the approval of the Experimental Use Permit (EUP).

c. Label must have violet-purple border band with a minimum of 1/8 in. wide for container smaller than 250 mL or 300 g net weight and 1/4 in. wide for bigger container up to 4 L or 5 kg.

d For products packed in boxes or plastic bags weighing 1-5 kg, product information and direction for use should be printed directly in the container with violet-purple band.

e. For product sold in containers smaller than 50 mL only, the product information are required to be printed on the label at the space specified. The direction for use should be printed in a separate leaflet or flyer.

The label for the following must contain:

1. **Bottles and boxes** (Please see Annex 2.7a)

   a. MIDDLE PANEL (1)

   Trade Name, Descriptive Statement
   Artwork (only crops registered)
   Registered by the Fertilizer and Pesticide Authority
   FPA Registration No.
   Date of Formulation__Batch/Lot No.___
   Expiry Date: good until _____
   Net Weight/Volume of Content

   Caution:
   "KEEP OUT OF REACH OF CHILDREN"

   b. MIDDLE PANEL (2)

   Direction for use, Crops, Dosage, Frequency
   Other instructions/information

   c. LEFT PANEL

   Guaranteed Analysis:
   Total N (%)
   Ammoniacal nitrogen (%)
   Nitrate nitrogen (%)

   Total P_2O_5 (%)
   Available P_2O_5 (%)

   Total K_2O (%)
   Water-soluble K_2O (%)

   Trace elements and secondary elements if desired (ppm for each element, if any)
   Manufacturer/distributor, Name and address

d. RIGHT PANEL

Package storage and disposal
Compatibility
Warranty

Color Band – ¼" violet-purple (4-Panel Label)

2. Bags of Solid Fertilizer (see Annex 2.7b and Annex 2.7c)

a. FRONT

Brand Name (with logo)
Guaranteed Analysis
For Inorganic Fertilizers (Annex 2.7b)**:**

Total N (%)
Ammoniacal nitrogen (%)
Nitrate nitrogen (%)

Total P_2O_5 (%)
Available P_2O_5 (%)

Total K_2O (%)
Water-soluble K_2O (%)

Trace elements and secondary elements if desired (ppm for each element, if any)
Name and Address of Local and / or Foreign Manufacturer/ Importer/Distributor
FPA Product Registration No.
Country Source

For Organic Fertilizers (Annex 2.7c):

Total NPK (%)
Moisture Content (%)
Organic Matter (%)
C: N Ratio if available

b. BACK

Brand Name with logo (optional)
Net Content: __ kg

In addition, for Foliar Fertilizer-for tanks and containers (Annex 2.7d and Annex 2.7e):
Batch number and code
Manufacture or importation: month and year
Expiry date: good until ___
Net Content (net mass or volume in kg/mL or L or gal)

Brochure should contain additional information

f. Brand name must not deceive or mislead the purchaser with respect to the composition or utility of the product.

g. Label Claims

There are claims that are not allowed on a product label, or must be substantiated before appearing on product; examples are:

1. undefined acronyms

2. unsubstantiated claims

- specific claims such as 20% more yield
- claims for unidentified active ingredients
- claims that discredit competing companies
- claims such as certified or approved without mentioning the certifying or approving agency/organization and without supplying a copy of the certificate or approval
- the word professional is unacceptable unless sold only through distributors to the end-user, and the main panel of the label must also bear the following statement: **For Professional Use Only**

- graphics that imply the use of pattern that has not been approved (e.g. food crop pictures when food use has not been approved); or unsubstantiated environmental benefits.

h. Global Harmonization System in labeling is discussed, formulated and be implemented (Annex 2.8).

2.2.6 PROCESSING AND ESTIMATED TIMETABLE FOR REVIEW PROCESS

1. Application forms for registration should be duly accomplished and submitted in duplicate copies (Figure 2.2). It shall be screened for completeness and if it is incomplete, it will be returned to the applicant. Filing fee shall be collected when all the registration documents are submitted. The application forms shall be logged in into the registration tracking system and will be forwarded to the Technical Consultants.

2. Reviewers/technical consultants are expected to complete the review of the data within 2-4 weeks.

3. Irrespective of the results of the review, FPA will notify the applicant, in writing, of the status of review and registration. Applicants should comply as soon as possible.

4. For locally produced products, manufacturing plants are inspected for evaluation of:

   a. Production process
   b. Laboratory facilities
   c. Manpower
   d. Industrial hygiene
   e. Occupational health and safety aspect of plant operation (Please refer to p.64).

2.2.7 LABEL EXPANSION

Product label should only contain the recommendations for crops in a particular group in which the product has been found to be effective. For label expansion, one efficacy test should be conducted on the representative crop in the desired crop grouping (Table 2.8). Other crops belonging to the same crop grouping do not need any additional efficacy test.

2.2.8 EXCLUSIVITY IN THE USE OF DATA

Data submitted to support the first full or provisional registration of a particular product will be granted protection for a period of five (5) years from the date of first issuance of full product registration. During this period, subsequent registrants may rely on these data only with first party authorization. Otherwise, they should submit their own data. After five (5) years from the date of first issuance of registration or data reporting, other applicants may use the data of the original registrant provided they share the cost in the data generation expenses incurred by the latter. The applicants should agree on the cost and/or otherwise, government mediates on the amount of their share of expenses. Moreover, the applicants must submit convincing proof that the product being registered is of the same raw materials and follows the same production process.

Figure 2.2 Schematic Diagram of the Fertilizer Product Registration Process

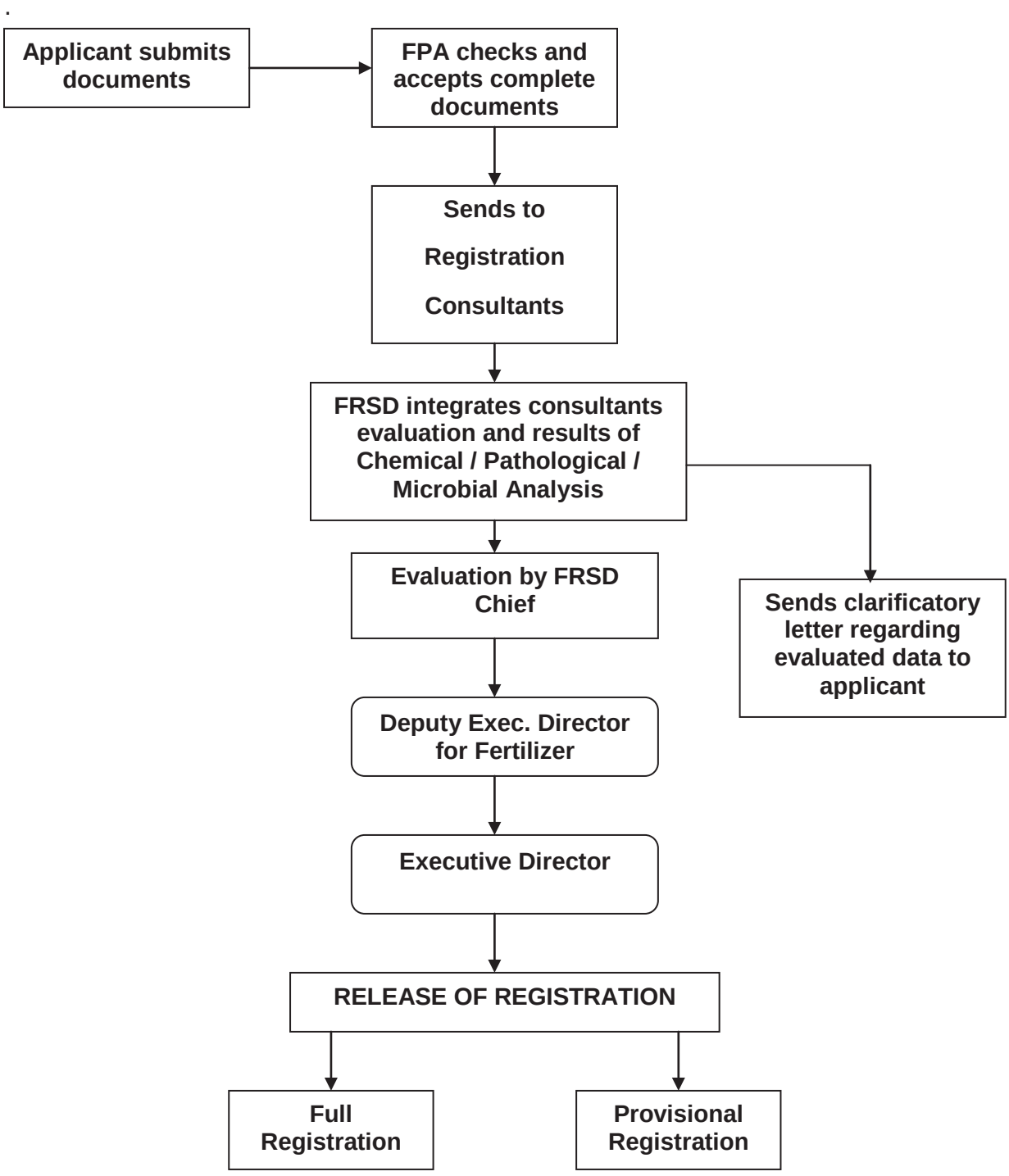


Table 2.8 Crop Groupings and Representative Crops

Group	Sub-Group	Crops Group	Representative Crops
1		**ROOT CROPS**	
	a	Root and tubers	Carrots, potato, radish
	b	Bulb Vegetables	Garlic, leek, onion
2		**FRUITING & LEAFY VEGETABLES**	
	a	Leafy Vegetables	Lettuce, spinach
	b	Fruiting Vegetables	Eggplant, tomato
	c	Herbs and Spices	Sweet basil, black pepper,
	d	Brassica (coles)	Cabbage, mustard Chinese, (pechay Baguio), pechay
3		**LEGUMES**	
	a	Legume Vegetables (Succulent or dried)	Mungbean, string bean
	b	Foliage of legumes	Mungbean, soybean leaves,
	c	Cucurbit vegetables	Cantaloupe, cucumber, squash
4		**MANGO & OTHER FRUITS**	
	a	Citrus	Calamondin, pomelo
	b	Pome	Apple, chico, pear
	c	Stone	Cherry, prune, peaches
	d	Small fruit	Bignay, grapes, strawberry
	e	Tree nuts	Cashew nut, pili nut
5		**CORN & OTHER UPLAND CEREALS**	Corn, sorghum, wheat
6		**RICE**	
7		**FORAGE FODDER & STRAW OR CEREAL GRAINS**	
	a	Forage	Corn, rice
	b	Grass foliage	Napier grass, cogon
	c	Non-grass animal feeds	Ipil-ipil, stylo
8		**SUGARCANE**	
9		**TURF**	
10		**ORNAMENTALS**	
	A	Cut flowers	Orchids
	B	Foliage	Bamboo, lady palm, maidenhair fern
	C	Indoor plants	Aglaonema, Poinsettia
11		**PLANTATION CROPS**	Banana, coconut, coffee, cacao, pineapple
12		**INDUSTRIAL CROPS**	Cassava, rubber trees, palm oil trees
13		**TOBACCO**	
14		**Others**	

2.2.9 THIRD PARTY AUTHORIZATION

Third Party Authorization (TPA) is accepted provided that the product being applied is fully registered and the following requirements are satisfactorily complied with:

a. Application form duly accomplished and notarized

b. TPA duly notarized with the exact date of expiration

c. Sample for confirmatory analysis by an FPA accredited laboratory

d. Proposed label

The TPA is an agreement or contract between two (2) companies, the original registrant and the party who received a TPA. The validity of the TPA is only three (3) years, but it may be extended for another three years by mutual agreement of the parties.

It is non-transferable and limited to three (3) TPAs only and can be issued by the original registrant only. The receiving third party cannot issue the same to another company.

Authorized party shall still comply with other requirements: filing of application forms, payment of fees and submission of labels.

Government institutions may issue TPA to more than three companies provided that the above-mentioned requirements and the following additional prerequisites are satisfactorily complied with:

a. Plant inspection by FPA inspection team

b. Collection of sample after the production run
c. Laboratory analysis of the collected samples

Franchising for organic fertilizer will be approved on a case-to-case basis and approval will be based on the availability of the raw materials as used by the original registrant and registered new product quality is identical to the original product quality.

2.2.10 REGISTRATION OF PRODUCTS ON A PER MANUFACTURER BASIS

Any product being applied for registration should be registered on a per manufacturer basis regardless of country of origin.

2.2.11 REGISTRATION OF BIOFERTILIZERS

In adherence to the rules and regulations of the NCBP, FPA shall require registrants to obtain clearance from the said committee prior to registration of the biofertilizer products.

The data requirement for the registration of living organisms that need to produce the biofertilizers shall be determined on a case-to-case basis after consultation with NCBP and FPA. Under the NCBP and FPA rules, the Philippines will regulate the use of any commercial biofertilizers, genetically modified organisms (GMOs) and agricultural products derived through modern Biotechnology.

GMOs are classified into 2 major groups according to use:

1. GMOs for use in **research and development** should adopt the guidelines of the NCBP only for contained tests (field and greenhouse).

2. GMOs **for commercial use** should be regulated by the FPA.

   a. The FPA and other government agencies, together with the NCBP, have drafted protocols for GMOs.

   b. Formed an inter-agency committee to establish policy guidelines and institutional support (laboratory, human resource, and logistics).

   c. FPA and NCBP have discussed the framework of collaboration to harmonize R&D and commercialization guidelines.

   d. The guidelines on GMOs were presented and signed by the Secretary of the Department of Agriculture.

Registration fees for each fertilizer product, filing fee and efficacy test fee are shown in the table below.

Table 2.9 Fees and Charges for Registration[a]

Registration Fee	Provisional[b]		Full[c]	
	Local	**Imported**	**Local**	**Imported**
New Application - Filing Fee	P 600	P 600	P 600	P 600
EUP/Product/Crop	600	1,200	600	1,200
Inorganic (New)	1,200	1,800	3,600	6,000
Inorganic (Old)	1,200	1,800	3,000	5,400
Organic	600	1,800	1,800	4,200
Soil Conditioner	600	1,800	1,800	4,200
Raw Material	600	1,800	1,800	4,200
Plant Growth Promoter	1,200	1,800	1,800	4,200
Specialty	1,200	1,800	1,800	4,200
Validity (year/s)	**1**	**1**	**3**	**3**

a Fees and charges for registration will change as the need arises.
b Registration valid for 1 year
c Registration valid for 3 years

2.1.12 RESTRICTED FERTILIZER PRODUCTS

Potassium Nitrate (KNO_3), in pure solid form, either as technical (99% KNO_3) or agricultural (97% KNO_3) grade, and other nitrates like calcium nitrate; calcium ammonium nitrate; sodium nitrate, and other materials whose handling are governed under E.O. No. 522, have inherent qualities which are beneficial to agriculture. KNO_3 is a proven flower inducer for mango and other crops. However, KNO_3 and other nitrates are substances which are found to be potential carcinogens[a] and can be used as ingredients in the manufacture of explosives. Henceforth, importation, sale, possession and use of these chemicals are restricted and subject to strict supervision by the Firearms and Explosives Division (FED) of the Philippine National Police (PNP).

1. POTASSIUM NITRATE AND OTHER NITRATES

a. Definition of Terms

a.1 **Potassium Nitrate** - potassium nitrate in pure, solid form which is either technical (99% KNO_3) or agricultural (97% KNO_3) grade.

a.2 **Other Nitrates** - refer to calcium nitrate, calcium ammonium nitrate, sodium nitrate and other materials under Executive Order No.522. (Importation of ammonium nitrate in solid form was banned effective November 22, 2002).

a.3 **Formulated Mango Flower Inducer** – FPA-registered product, in solid or liquid form, nitrate or ethylene/ethephon-based that has been diluted with water and/or other substances which are not harmful to mango trees, used for the purpose of inducing mango trees to flower.

a.4 **Mango Contractor** - refers to person(s)/entities who enter a contract

with a mango grower to service his trees (from flower induction to harvesting) for a fee or on a sharing basis.

[a] Carcinogenic potential may be due to exposure to the products during application or spraying and drinking nitrate contaminated water. This may also be due to the leaching of soil-containing fertilizers in several bodies of water. Concentration of less than 10 mg/L of nitrate-N is allowed in drinking water (United States Environmental Protection Agency (US-EPA)).

b. Acquisition of Potassium Nitrate and Other Nitrates for Agricultural Use

b.1 Under existing regulations, the importation, transport, storage and use of nitrate is under the jurisdiction of the Philippine National Police Firearms and Explosives Division (PNP-FED) as provided for under Executive Order No. 522. Thus, a permit to import, purchase and acquire potassium nitrate and other nitrates is required from the Chief of the PNP-FED, whether for agricultural use or other purposes.

b.2 Only FPA-licensed persons/entities can apply for a permit to import and use potassium nitrate and other nitrates for agricultural purpose from the PNP-FED.

c. Sale and Use of Potassium Nitrate and Other Nitrates

c.1 Only FPA-licensed mango contractors can purchase and use potassium nitrate and other nitrates. The use of KNO_3 and other nitrates for mango flower induction should conform to the instructions given during the FPA-accredited and recognized Mango Contractors' Training Workshop.

c.2 FPA and PNP-FED licensed importers/ distributors can sell/distribute potassium nitrate only to licensed mango

contractors who are trained in the proper use of potassium nitrate and other flower-inducing products, fertilizers and pesticides.

c.3 FPA and PNP-FED licensed importers/distributors can also sell/distribute other nitrate fertilizers except potassium nitrate to crops other than mango but not limited to the following crops such as: vegetables, cutflowers, sugarcane, pineapple and banana. The importer/distributor must submit disposition reports as to where the product is sold.

c.4 Requirements such as location of farm, number of fruit bearing trees, area and contract will all be added to monitor the use of KNO_3. Also, scheme of fertilization of the trees after harvest should be outlined and be disclosed.

d. Provisions

d.1 After accomplishing all the requirements for a Mango Contractor's license an inspection report from FPA Field Officer will be submitted to FPA Central Office. The Mango Contractor's license shall be effective for 1 year and renewable every year thereafter.

d.2 Mango Contractors without FPA and PNP-FED license to distribute potassium nitrate and other nitrates are prohibited from selling or distributing such commodities.

d.3 All movements of potassium nitrate and other nitrates, which are covered under Executive Order No. 522, shall be under the supervision of PNP-FED.

d.4 All growers and mango contractors without FPA license as "Mango

Contractor" are not allowed to use potassium nitrate and other nitrates. However, they can use formulated flower inducer.

d.5 Agro-pesticide dealers are prohibited from selling potassium nitrate and other nitrates.

d.6 Potassium nitrate and other nitrates have to be registered with FPA if also used in other crops other than mango.

d.7 Location of the plantation, area, number of fruit bearing trees and a copy of contract if farm is contracted, are needed for VAT exemption for importation. (Annex 2.9)

d.8 Safety Monitoring System is needed for Ammonium Sulfate (21-0-0) and Potassium Sulfate (0-0-50) for importation, manufacture, distribution, sale and movement as these are in the master list of explosive materials of the PNP. Importers and manufacturers should secure a Transshipment Permit from FPA, from warehouse to distribution points on a regional basis. FPA certified copy of Import Permit and Transshipment Permit should be submitted to FPA regional office and Provincial PNP command to avoid theft, pilferage, robbery or hijacking or damage caused by force.

e. Penalties

Aside from penalties imposed by PNP-FED for violators of provision under Executive Order No. 522, FPA may impose sanctions against violators of this book which include, but are not limited to, the issuance by FPA of a Stop Sale / Stop Use / Stop Move Hold Order or the suspension or revocation of business license and

imposition of such other sanctions that FPA is empowered under its charter, after due notice and hearing.

2.1.13 GUIDELINES ON OCCUPATIONAL SAFETY AND HEALTH FOR FERTILIZER PLANTS

1. Introduction

The protection of human health and environment is one of the major program thrusts of FPA in pursuance of its mandate. Furthermore, Article 162 of the Labor Code of the Philippines specifically states, *"the Department of Labor and Employment (DOLE) shall set and enforce mandatory occupational safety and health standards to eliminate or reduce occupational hazards in workplace institute new programs and update existing programs to ensure safe and healthy working conditions in all places of employment."*

2. General Provisions

The objective of these guidelines is to protect every working man against the hazards, injury, sickness or death from exposure to chemicals through the promotion of safe and healthy working conditions.

a. Duties of Workers, Employees and Others Concerned

Employers covered by these guidelines shall:

a.1 Furnish workers a place of employment free from hazardous conditions that are likely to cause injury, illness or death or harm to workers.

a.2 Give complete job safety instructions to all his workers including those relating to

familiarization with their work environment, hazards to which the workers are exposed and steps to be taken in case of emergency.

a.3 Provide workers with the approved devices and equipment in the workplace. Workers covered by these guidelines are required to observe the provisions of this Book.

3. Inspection

Every establishment shall be inspected by FPA at least once a year to determine compliance with the provisions stated upon application for a license whether new or for renewal or for monitoring purposes (Annex 2.10).

4. Premises of Establishments

Building premises shall have adequate fire, emergency or danger sign and safety structures of standard color and sizes visible at all times.

Good housekeeping shall be maintained at all times through cleanliness of the building premises, yards, machines, equipment, regular waste disposal, and orderly arrangement of processes, operations, storage and filling material.

5. Environment Control

a. Threshold Limit Values (TLVs) for Air-borne Contaminants

TLVs refer to air-borne contaminants representing conditions under which it is believed that nearly all workers maybe repeatedly exposed daily without adverse effect.

The Occupational Safety and Health Standards of the DOLE has established TLVs for toxic and carcinogenic substances and physical agents which may be present in the work environment.

For compliance, administrative or engineering control must first be determined and implemented whenever feasible. If not, protective equipment or other appropriate measures shall be employed to keep the exposure of employees to air-borne contaminants within the prescribed limits.

b. General Ventilation

Suitable atmospheric conditions shall be maintained in workplaces by natural or artificial means to avoid insufficient air supply, stagnant or vitiated air, harmful drafts, excessive heat and cold, variation in temperature, excessive humidity or dryness and objectionable odors. Dusts, gases, vapor or mists generated and released from work processes shall be removed at the point of origin so as not to permeate the atmosphere in the workrooms.

6. Personal Protective Equipment (PPE) and Devices

a. General Provisions

No person shall be subjected or exposed to hazardous environmental conditions without protection. Every employer shall at his own expense, furnish his workers with protective equipment for eyes, face, hands and feet, protective shields and barriers whenever necessary because the hazardous nature of the process, chemical and other mechanical irritants or hazards is capable of causing injuries. The employer shall be responsible for the

adequacy and proper maintenance of PPE used in the workplace. All PPE shall have approved design and construction appropriate for the exposure and the work to be performed.

b. Eye and Face Protection - Eye and face protective equipment shall be required where there is reasonable probability of exposure to hazards.

c. Respiratory Protection - The primary corrective measure in the control of occupational hazards caused by harmful dusts, fumes, mists, gases, smoke, spray or vapor is through the prevention of atmospheric contamination. Appropriate respirators shall be provided by the employer to protect the health of the employees.

7. Occupational Health Services

a. Every employer shall establish in his place of employment, occupational health services in accordance with the regulations and guidelines stipulated in the Occupational Safety and Health Standards of DOLE. These services have essential preventive functions and they are responsible for advising the employees, the workers and their representatives in matters of:

a.1. establishing and maintaining a safe and healthy working environment which will facilitate optimal physical and mental health in relation to work; and

a.2 the adoption of work to the capabilities of workers in the light of their state of physical and mental health.

b. The health program shall include the following activities:

b.1 Maintenance of a healthful working environment by requiring occupational health personnel to conduct regular appraisal of sanitation conditions, periodic inspection of premises, and evaluation of working environment in order to detect and appraise occupational health hazards and environmental conditions affecting comfort and job efficiency.

b.2 Health examination - All workers, irrespective of age and sex, shall undergo physical examination:

b.2.1 Before employment

b.2.2 Periodic or at such intervals as may be necessary on account of the conditions or risks involved in the work

b.2.3 When transferred or separated from employment

b.2.4 When injured or ill

All examinations shall be:

- Complete and thorough
- Be rendered free of charge
- Include x-ray or special laboratory examination when necessary due to the peculiar nature of employment.

The result of these examinations shall be recorded carefully and legibly on appropriate forms by the personnel in charge and shall be considered as strictly confidential information.

Special examination may be required where there is undue exposure to health hazards.

Chapter III

LICENSING OF HANDLERS

3.1 BASIC POLICIES

3.1.1 All persons who shall engage in the business of exporting, importing, manufacturing, formulating, bulk blending, distributing, supplying, repacking, storing, commercially applying, selling, marketing of any pesticide, fertilizer and other agricultural chemicals must secure a license from FPA.

3.1.2 Pursuant to P.D. 1144, FPA is authorized to promulgate rules and regulations for the registration and licensing of fertilizer handlers, pesticide and other agricultural inputs, collect fees pertaining thereto as well as for renewal, suspension, revocation or cancellation of such registration or license and such other rules and regulations as may be necessary to implement P.D. 1144.

3.1.3 Applicants for dealership license must submit the certificate of Training on FPA Accredited Safety Dispenser of Agricultural Chemicals to FPA. Cooperatives shall pay only 50% of the license fee for fertilizer dealership per outlet. Filing fee shall not be collected from new applicants. However, for new applicants for fertilizer handlers other than dealers, a filing fee shall be collected. All other outlets shall be licensed separately.

3.1.4 Fertilizer dealership and dealer-repacker licenses shall be valid for three (3) years reckoned from the date of its issuance while for fertilizer handlers other than dealers, their

license shall be valid for one (1) year. Renewal for such shall be filed three (3) months before its expiry date. Application for renewal filed within one (1) month after its expiry date shall be subject to a 50% surcharge while those filed after the said period shall be subject to a 100% surcharge.

3.2 COVERAGE

A license is a written authority granted by FPA to an individual or firm to manufacture/process, bulk blend, supply, distribute, market, sell, repack, store, import and export fertilizer products and/or plant growth promoting materials for commerce. Fertilizer handlers, who are exporters, importers, indentors, processors, bulk blenders, manufacturers, formulators, suppliers, distributors, bulk handlers, area-distributors, dealers and dealer-repackers of fertilizer, warehouses for fertilizer inputs and other agricultural chemicals have to apply and secure a license from FPA.

3.3 DEFINITION OF TERMS

a. **License** - refers to the written authority granted by FPA to an individual or firm to manufacture/process, supply, distribute, market, sell, repack, store, import, and export fertilizer and/or plant growth promoting materials for commerce.

b. **Fertilizer Handlers** – refer to exporter, importer, import consolidator, manufacturer, processor, bulk blender, formulator, repacker, distributor, indentor, bulk handler, dealer, and dealer-repacker of fertilizer inputs.

b.1 **Importer-End-User** - refers to commercial plantations, which import and use the fertilizers directly for their consumption and private research institutions or companies that import or use fertilizers for testing purposes.

b.2 **Importer** - any person engaged in the importation of fertilizer as a business and sells to distributors.

b.3 **Distributor** - any person who sells fertilizer products to dealers and outlets only.

b.4 **Area Distributor** - any person who sells fertilizer products to dealers and outlets in a certain area such as Luzon, Visayas and Mindanao Islands.

b.5 **Bulk Handler** - any person engaged in handling the fertilizer either in bulk or in bag which include bagging and hauling from the port to the warehouse.

b.6 **Exporter** - any person who sells fertilizer products to other countries.

b.7 **Indentor** - any person who orders fertilizer products from suppliers of other countries.

b.8 **Repacker** - refers to any fertilizer companies duly authorized to engage in retailing fertilizers and other new grades except nitrates, in smaller quantities. Repacking of solid fertilizer in 5, 10, 25 and 50 kg is at the distributor's level. For liquid fertilizer, repacking volume is in 25, 50, 70, 100 and 250 ml.

b.9 **Dealer-Repacker** - refers to FPA-licensed dealers duly authorized to engage in retailing traditional, solid and inorganic fertilizers except nitrates, in smaller quantities. Repacking of solid fertilizer in 1, 2 and 5 kg is at the dealer's level.

b.10 **Manufacturer/Processor/Bulk-blender/Formulator** - any person engaged in preparing, mixing or manufacturing fertilizer as a business.

b.11 **Dealer** - refers to fertilizer establishment or distributor to retail products authorized by the fertilizer companies.

b.12 **Mango Contractor** - refers to person(s)/entities who enter into a contract with a mango grower to service his trees (from flower induction to harvesting) for a fee or on a sharing basis.

b.13 **Supplier** – refers to any business entity which sells fertilizer products to importers.

b.14 **Import-Consolidator** - any person who represents and assists eligible agricultural enterprises which have small size orders or lack direct import experience.

c. Outlets - additional stores owned by a dealer or distributor.

d. Person - an individual, partnership, association, firm or corporation.

e. Warehouse - storehouse for fertilizer products.

f. Accreditation – authorization issued to a person/entity of a networking or multi-level marketing scheme, in lieu of a license, after successfully attending the Accredited Safety Dispensers training.

g. Fertilizer and Pesticide Accredited Network Dispenser (FPAND) – a person in the networking or multi-level marketing also known as Individual Business Operator (IBO), among others who do not have a permanent store/structure licensed by the Authority and is authorized to dispense fertilizer/pesticide products which are registered with the FPA from a mother company or the duly licensed handler by the Authority.

h. Multi-level Marketing - network marketing or multiple effort, among others. Under this scheme,

distributors/dealers or IBOs who are independent contractors and not employees of the company, act both as the company's customer base as well as the marketing and sales arm for the company's products and business opportunities.

i. **Mother Company** – the duly licensed handler by FPA with an office/store/warehouse, who follow the networking multi-level or multiple effort of marketing and distribution system and supplies the duly registered products to the FPAND.

3.4 REQUIREMENTS FOR LICENSING OF HANDLERS

The licensing requirements and the corresponding fees depend on the type of activity and subscribed authorized capitalization of the company. Table 3.1 shows the Summary of Licensing Requirements and Annexes 3.1 to 3.6 show the various application forms for the different fertilizer handlers.

a. Importer/End-Users

a.1 Accomplished and notarized application form (original copy) with documentary stamps required (Annex 3.1).

a.2 For:

- Corporation/Partnership – copy of Security & Exchange Commission (SEC) registration and Articles of Incorporation, wherein one of the primary purpose is the manufacturing/ importing/ exporting and distributing of fertilizer, Board Resolution authorizing representative to file application, mayor's permit
- Cooperative – copy of Cooperative Development Authority (CDA) Registration, Board of Resolution authorizing representative to file application, mayor's permit
- Single proprietorship – copy of certificate of business name registration with Department of Trade & Industry (DTI),

mayor's permit and Special-Power-of-Attorney, if filed by a representative.

a.3 Income tax return and financial statements

a.4 Product Registration

a.5 Certification from Mother Company/Foreign Supplier

a.6 Registration of Fertilizer Warehouse/s

a.7 Filing fee (New Applicants)

a.8 License fee

b. Importer

The requirements are the same with importer-end-user (Table 3.1). In addition, list of fertilizer products to be imported and disposition data as the need arises should be submitted to FPA.

The detailed procedure of the fertilizer importation and exportation on National Single Window is in Annex 4.5.

c. Distributor and Area Distributor

The requirements are the same with importer (Table 3.1). The list of fertilizer products to be distributed and inspection of warehouse and recommendation report from PDO are required.

d. Bulk Handler

The requirements are the same with importer but no registration of product and warehouse is required (Table 3.1). List of bulk handling equipment (owned or leased) and port operation should be submitted to FPA.

e. Exporter

Requirements are the same with that of an importer (Table 3.1).

List of fertilizer products to be exported must be submitted to FPA. Also, such products should be registered with FPA.

f. Indentor

Requirements are the same with importer but registration of fertilizer is not required (Table 3.1). Copy of contract with manufacturer is required. For foreign suppliers, a copy of Board of Investment (BOI) registration is also required.

g. Repacker

Requirements are the same with distributor (Table 3.1) and corresponding application form is in Annex 3.6. It is required to have a weighing scale every repacking site. Packaging of repacked solid fertilizer is in 5, 10, 25, and 50 kg at the distributor level. For liquid fertilizers, repacking is, 25, 50, 70, 100 and 250 ml at distributor's level.

Table 3.1. Licensing Requirements For Fertilizer Handlers And Validity Of License

		Importer-End-User	Importer	Distributor	Area Distributor	Bulk Handler	Exporter	Indentor	Repacker	Manufacturer/Processor /Bulk blender	Dealer	Dealer–Repacker	Mango Contractor
1.	Duly accomplished and notarized application form with stamp	√	√	√	√	√	√	√	√	√	√	√	√
2.	For: Corporation-certified true copy of SEC & Articles of Inc., wherein one of the primary purpose of the company is the manufacturing/ importing/ exporting and distributing of fertilizer, Board Resolution informing FPA of the authorized company's representative. Foreign-owned partnership, Association or Corporation are subject to the Foreign Investment Act.	√	√	√	√	√	√	√	√	√	√	√	√
	Cooperative – certified true copy of CDA Registration with Board Resolution informing FPA of the authorized cooperative's representative.	√	√	√	√	√			√	√	√	√	√
	Single Proprietorship – certified true copy of DTI's Permit, Mayor's Permit and Special Power-of-Attorney, if representative. Foreign-owned single proprietorship is subject to the Foreign Investment Act.	√	√	√	√	√	√	√	√	√	√	√	√
3.	Certified true copy of Income Tax Return and Financial Statement	√	√	√	√	√	√	√	√	√			
4.	Product registration of all fertilizer grades to be manufactured /sold/exported/repacked	√	√	√	√		√		*	√	*	*	
5.	Distributorship agreement/ Certificate from mother company/Authority to repack	√	√	√	√				√				
6.	Registration of fertilizer warehouse	√	√	√	√	a				√	***		
7.	Filing fee (New) applicant	√	√	√	√	√	√	√	√	√			
8.	License fee (New/Renewal)	√	√	√	√	√	√	√	√	√	√	√	√
9.	List of fertilizer products to be manufactured/repacked/sold		a	√	√		a	a	√	√	√	√	
10.	Inspection report and recommendation from FPA-PDO II / PDO IV, deputized provincial field officers of facilities and/or warehouses	√	√	√	√	√	√		√	√	√	√	√
11.	List of bulk handling equipment owned/leased and port operation					√							
12.	Pre-licensing inspection report of plant site, laboratory facilities and manpower									√			
13.	Certificate from FPA-licensed manufacturer/ processor as to its source and certified analysis of fertilizer products.						√						
14.	Copy of contract with manufacturer. For foreign suppliers, copy of BOI (Phil) and may set-up a Branch office or appoint local representative to handle business in their behalf							√					
15.	Mining permit from Bureau of Mines and Geo-Sciences									√			
16.	Environmental Compliance Certificate (ECC) from DENR									√			
17.	Weighing scale at the repacking site at the point of sale								√		√	√	
18.	Certificate of membership for agro-dealer/mango contractor association										√	√	√
19.	Certificate of Accredited Safety Dispenser Training										√		
20.	Mango Contractor's Training	**	**										√
21.	Duration (Year)	1	1	1	1	1	1	1	1	1	3	3	1

* All fertilizers sold or repacked should be registered by the distributors, importers and manufacturers.

** For restricted fertilizer imports (Potassium nitrate and other nitrates), disposition should only be to licensed mango contractors.

***Optional

[a] if applicable

h. Manufacturer / Processor / Bulk-blender / Formulator

The requirements are the same with importer (Table 3.1). Pre/Post-licensing inspection report of plant site, laboratory facilities and manpower by FPA-RDO is required. Mining permit and Environmental Compliance Certificate (ECC) from Environmental Management Bureau, Department of Environment and Natural Resources (EMB-DENR) must be submitted to the Fertilizer and Pesticide Authority (FPA).

i. Dealer

The requirements are shown in Table 3.1. All fertilizers to be sold should be registered by any of the following: distributors, importers or manufacturers or whichever is the source of the fertilizers. Income tax return and financial statement are not required but Certificates of Membership of Association and Accredited Safety Dispenser (ASD) Training should be submitted to FPA. Previous trainings are still valid but retooling of handlers are encouraged.

j. Dealers' Association

A member of the association must apply for license as dealer/dealer-repacker of fertilizer.

k. Dealer-Repacker

The requirements are the same with dealers (Table 3.1), except for registration of warehouse. Weighing scale is required at the repacking site. Repacking weights of solid fertilizer should be 1, 2 and 5 kg only. Application forms are in Annexes 3.2 and 3.6.

All fertilizers to be repacked should be registered by any of the following: the distributor, the importer, the manufacturer or whichever is the source of the fertilizers.

For liquid fertilizer, repacking weight is 25, 50, 70, 100, 250 ml, and at distributor's level not at dealer's level.

l. Mango Contractor

Requirements are shown in Table 3.1 and application form is in Annex 3.6. Certificates of mango contractor association membership and training workshops attended must be submitted to FPA.

3.5 PROCESSING OF LICENSES FOR HANDLERS OF FERTILIZER

The schematic diagram for license processing is shown in Figure 3.1

a. Applicant shall submit duly accomplished application form for licensing in duplicate copies. This shall be submitted through the FPA field officers in the provinces or regions, to the FPA central receiving officer or to the FPA Fertilizer Regulatory Services Division personnel.

b. Submitted documents shall be validated. If found incomplete, it will be returned to the applicant. If the applicant completes all the requirements, filing fee for new applicants and license fee for new and renewal applicants shall be collected. If in provinces or regions, payments can be made in the form of postal money order (PMO) payable to FPA.

c. The application will be entered in the licensing tracking system.

c.1 If the application is for license as a dealer, dealer-repacker and mango contractor, the applicant's certificate of training should be submitted.

c.2 If application is for license as a manufacturer, importer, distributor or exporter, the registration of fertilizer products to be imported, distributed, exported, processed, bulk-blended or manufactured is needed.

d. Issuance of license.

3.6 VALIDITY OF LICENSE AND RENEWAL

The license of dealers shall be valid for three (3) years while the license of fertilizer handlers shall be valid for one (1) year.

Application for renewal of license shall be filed three (3) months before expiry date. The requirements for renewal of license are the same with new application (Annexes 3.2 and 3.3). If there are changes in their articles of incorporation, full copy of the SEC registration certificate shall be submitted.

Renewal of licenses and warehouse registration is decentralized to FPA regional offices. As a general rule, all licenses shall be renewed at least a month before the expiration. Licenses renewed within a month after expiration shall have a surcharge of 50% while licenses that are renewed after a month of expiration shall have a surcharge of 100% of the usual license fee.

3.7 REGISTRATION OF WAREHOUSE

All warehouses or fertilizer storage should be properly registered. (Annex 3.7). A complete description of the place should be specified, i.e. owner's name, location, fertilizer and pesticide storage capacity and total floor area. The facility should be properly marked and display a sticker, indicating its registration as shown in Figure 3.2. PDOs inspection report is required (Annex 3.8).

The minimum floor area for a fertilizer warehouse must be fifty (50) square meters.

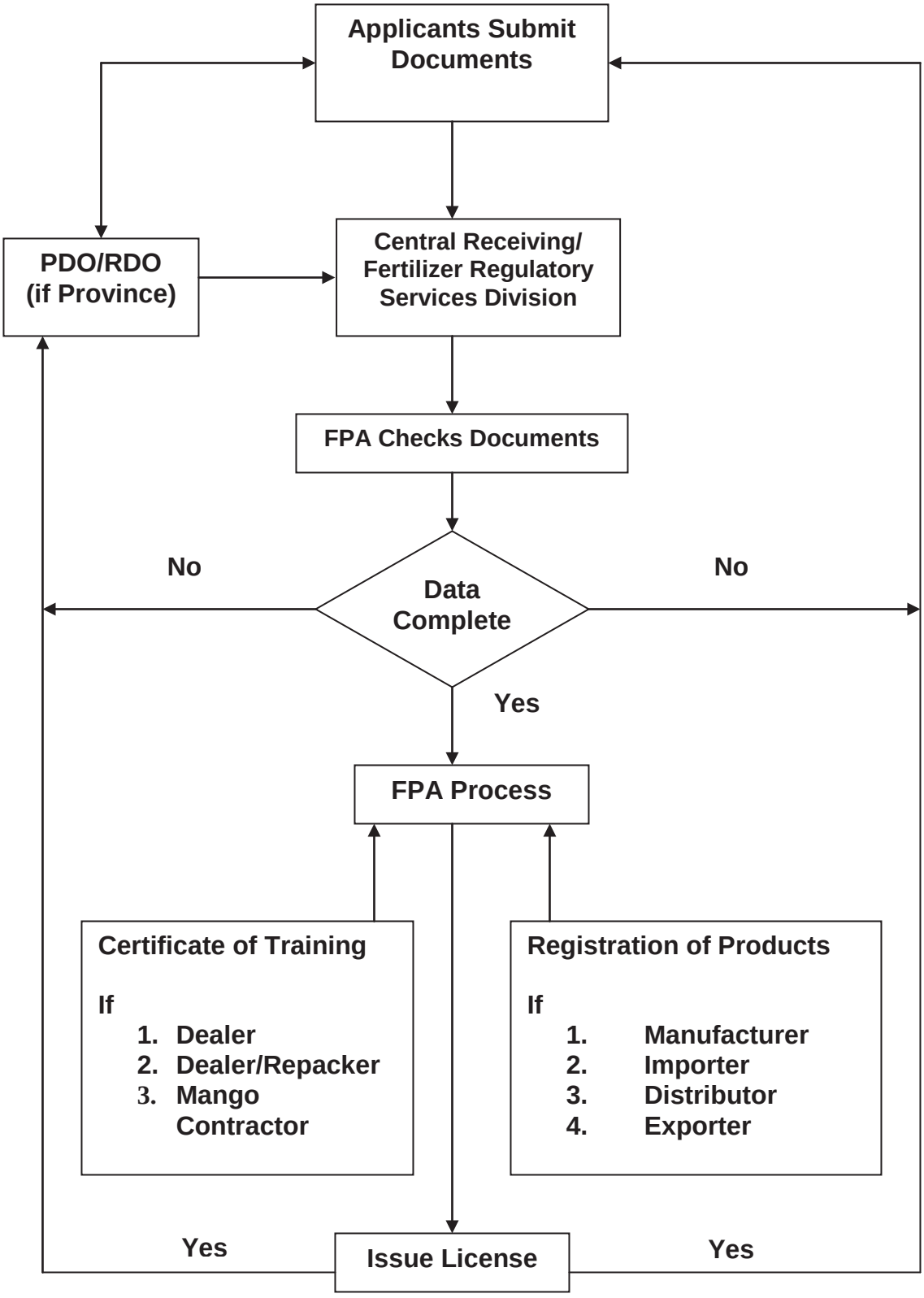
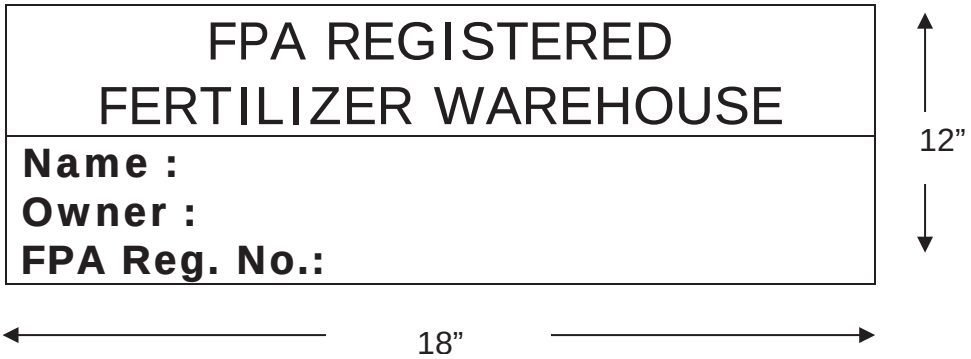


Figure 3.1 Schematic Diagram of License Processing for Fertilizer Handlers

Figure 3.2 FPA Billboard for Fertilizer Warehouse



3.8 FEES AND CHARGES [c]

3.8.1. LICENSE FEES - License fees are based on the companies' capitalization (subscribed or paid up capital plus retained earnings or earnings for the year) as follows:

a. Fertilizer Handlers other than Dealers

1. **Over P5M capitalization**

1st activity	-	P	8,400
Additional activities	-		4,800

2. **Over P1M to P5M capitalization**

1st activity	-	5,400
Additional activities	-	3,600

3. **Over P500T to P1M capitalization**

1st activity	-	3,600
Additional activities	-	1,800

4. **P500T and below capitalization**

1st activity	-	1,800
Additional activities	-	850

5. **Filing Fee / Activity for New Applications**

Manufacturer, formulator, bulk blender, processor, repacker, institutional user	-	3,600

and bulk handlers, rebagger repacker		
Other activities	-	1,800

b. Dealers (renewable every 3 years)

1. Fertilizer dealers/repackers	-	P 1,800
2. Members of dealer's association	-	1,500
3. Fertilizer and pesticide dealers	-	4,000
4. Members of fertilizer and pesticide dealer's association	-	3,200
5. Cooperative	-	50% of dealer's fee

c. Warehouses

1. Fertilizer	-	P 1,200
2. Both fertilizer and pesticide	-	2,400

d. Mango Contractors (annually)	**-**	1,200
Members of Accredited Associations	-	600

3.8.2. PROCESSING FEES

a. VAT Exemption Certificate	-	P 600
b. Permit to industrial users	-	600
c. Export Permit	-	600
d. Authority to purchase damaged fertilizer	-	600
e. Transshipment Permit	-	600
f. Other certifications	-	350

3.8.3. PENALTY FEES FOR LATE RENEWAL

a. Within 1 month after expiry date	-	50% surcharge
b. After 1 month of expiry date	-	100% surcharge

3.8.4. PENAL PROVISIONS

FPA may suspend or revoke after due notice and hearing, the license of establishments found to have violated any of its provisions of licensing.

Chapter IV

FERTILIZER MOVEMENT, SUPPLY AND QUALITY PRODUCT STANDARD

4.1 FERTILIZER MOVEMENT

4.1.1 BACKGROUND

Considering the country's archipelagic geography, the delivery of fertilizer stocks from sources to end-users in the different farming communities nationwide is the main concern of the fertilizer distribution system. The standards of efficiency in the physical distribution of fertilizer are reckoned in terms of the timely availability of suitable fertilizer at a favorable price. From farmers' viewpoint, an increase in efficiency means getting the right kind of fertilizer needed for its timely application to growing crops at the lowest possible cost.

4.1.2 BASIC POLICIES

a. Pursuant to P.D. 1144, FPA is mandated to rationalize the manufacture and marketing of fertilizer for the purpose of assuring the agricultural sector of adequate supply of fertilizers at reasonable prices. No person shall be allowed to engage in the business of importing, producing, storing, distributing, marketing, and exporting any fertilizer except under a license issued by FPA.

b. No fertilizer product shall be imported, produced, distributed, marketed, or exported unless it has been duly registered with the FPA. All fertilizer products which are either

imported, produced or mixed locally and intended for agricultural use are exempted from the payment of a 12% Value Added Tax. Certification for this incentive shall be secured from the FPA.

c. Damaged, off-specification or bad order fertilizer, which include, among others, sweepings or water damaged fertilizer contaminated with inert substances but still retain its fertilizing properties, may only be disposed upon approval and supervision of FPA. Such inventory must be marked "bad order", "damaged fertilizer" or with a large "**X**" to distinguish them from good order stocks. Its movement is monitored through a corresponding transshipment permit from FPA.

d. Damaged fertilizer is given the maximum selling price of 70% of its previous warehouse price and should only be sold directly to end-users or farmers' cooperatives.

e. By and large, the quality standards referred to as the Philippine National Standard (PNS) specifies the physical properties, chemical composition, packaging, marking, testing or analytical method of analysis for each target fertilizer grade.

f. For solid inorganic fertilizer, the permissible minimum tolerance from the guaranteed nutrient shall not be less than 98% of each of the major nutrients.

g. For organic fertilizer, total organic matter content should not be less than 20% (oven-dry basis) with a C:N ratio of 12:1.

h. The packaging of fertilizer as specified by the PNS should be at a 50 kg. bag weight.

4.2 FERTILIZER SUPPLY

4.2.1 FERTILIZER IMPORTATION

In line with the liberalization policy, importation of fertilizer shall no longer require FPA clearance prior to the opening of letter of credit (L/C). However, all fertilizer importations for agricultural use shall only be done by FPA-licensed importers and shall cover only FPA-registered fertilizer under these conditions:

a. The FPA Certificate Authorizing Importation of Fertilizer (CAIF) for the opening of L/Cs and for other modes of importation shall no longer be required.

b. Procurement shall be through direct negotiation by fertilizer companies with foreign suppliers.

c. Imported fertilizer is subject to quality monitoring by FPA. Standard sampling procedures shall be observed in the gathering of samples for laboratory analysis.

4.2.2 FERTILIZER PRODUCTION

Manufacturers/processors who engage in fertilizer production business, must be licensed and their products must be registered with the FPA. Under Executive Order 226, Omnibus Investment Code of 1987, as amended by R.A. 7918 (s. 1995) tax discounts and incentives are granted to all fertilizer (organic and inorganic) manufacturers registered with Board of Investment (BOI) (Annex 4.1).

4.2.3 FERTILIZER MARKETING AND DISTRIBUTION

Since the liberalization of fertilizer trade in 1986, fertilizer marketing and distribution became a free enterprise of the private sector. Companies can enter the distribution business of the wholesale and retail level after securing appropriate license from FPA to operate the business.

4.2.4 FERTILIZER EXPORTATION

Exportation of any type of fertilizer shall further be subjected to the rules and regulations promulgated by (DFA) and other agencies governing all exports. Exporting of products for countries where the Philippines has no trade relations has to be cleared by the exporter with other appropriate agencies such as the DFA, before FPA issues an export authority (Annex 4.2).

4.3 DISPOSAL OF OVERLANDED/ MISSHIPPED/ RECOVERED GOOD ORDER/ DAMAGED/ BAD ORDER FERTILIZERS

4.3.1 DEFINITION OF TERMS

a. **Overlanded Fertilizer** - any volume of fertilizer that is in excess of the certified volume declared by the importer/consignee or/ consignor.

b. **Misshipped Fertilizer** - includes fertilizer shipments not intended for the country through carrier that sunk or run around the Philippine waters and ceded to Philippine private or government entities or an unauthorized fertilizer importation apprehended and seized by law enforcement agencies.

c. **Recovered Good Order Fertilizer** - recovered fertilizer that meets the minimum

standard requirements for good order fertilizer with not more than 2% nutrient loss and 1% moisture content.

d. **Damaged/Bad Order Fertilizer** – fertilizers that do not conform to the standard requirements for good order fertilizer. This includes sweepings, water damaged, and fertilizer contaminated by inert substances but still retain their fertilizing qualities.

e. **Disposition of Damaged Stocks**- distribution of fertilizer may be done through sale, bid awards, donations, and all other legitimate acts to do away with damaged stocks.

f. **Revalidation** – refers to the extension of the 15 day validity period of a previously issued permit to transport those partially used or totally unused due to valid reasons such as changes in fertilizer grades, viable pricing, transport limitations, etc. which hampered the permit holder from completing the transshipment within the authorized period.

4.3.2 DAMAGED FERTILIZERS AT DISTRIBUTOR/DEALER WAREHOUSE/STORE

a. Distributor/dealer should report to the FPA Provincial Officer the number of damaged fertilizer stocks that were actually damaged specifying the grade, volume, reason and extent of damaged within two days from the occurrence of the damaged stocks.

b. The damaged fertilizers should be stored separately with the good order fertilizer and should be marked as such.

4.3.3 OVERLANDED, RECOVERED GOOD ORDER FERTILIZER, DAMAGED OR BAD ORDER FERTILIZER

Acquired by insurance companies, adjusters, salvaged companies, law enforcement agencies and others.

a. Purchase of fertilizer shall be in this order:

a.1 The original owner/consignee shall have the first option to purchase.

a.2 The recovered good order/damaged fertilizers shall be offered to duly licensed companies with the second option to purchase. Should all or two or more fertilizer companies be willing to acquire the fertilizer, the company with the right offer through a closed bidding supervised by FPA shall be awarded with the stocks.

a.3 Should there be no taker on the second option, the recovered good order/damaged fertilizers shall be offered to qualified agricultural cooperatives.

a.4 In the case of overlanded fertilizers, the original importer/consignee shall have the option to apply for additional permit from FPA.

a.5 Should the original importer/consignee not exercise its option, this shall be waived and the overlanded fertilizers shall then be qualified as recovered good order fertilizers and its disposition shall be in accordance with paragraphs a.2, a.3, a.4 of Section 4.3.3.

b. Interested buyers shall be guided by the following procedures:

b.1. Interested buyers shall submit a letter of request to buy damaged fertilizer and

secure clearance from the FPA Field Officer concerned.

b.2. For agricultural cooperatives, their president or any responsible official must file with FPA a notarized sworn statement indicating the name and addresses of farmer-members, location of farms and their respective fertilizer allocation of the requested damaged fertilizers and crops to be planted for one crop season. It shall also be stated that these farmers have authorized the president or their representative to purchase and supply the fertilizer.

The concerned FPA Field Officer shall attest that the buyer is a legitimate agricultural cooperative and that the request for number of bags is sufficient for application in the members' farm for the cropping season.

b.3 It is emphasized that these damaged fertilizers are not subject to resale.

b.4 Upon confirmation of sale, withdrawal of stocks shall only be allowed under the supervision of the FPA Field Officer to ensure that bags are clearly marked "X" at the front-center and back center of the bag.

b.5 Damaged stock shall not be released unless properly marked and the buyer must secure a permit to transport from FPA Central Office if the quantity is 100 bags or more, or from the FPA Field Officer if the quantity is less than 100 bags.

b. 6 A monthly report of transshipment permit issued shall be submitted by the FPA Provincial Officer to FPA Central Office and copy furnish the FPA Regional Officer.

b.7 A monthly report of damaged stocks disposal and schedule of withdrawal shall be submitted by the warehouse supervisor/in-charge to FPA Central Office and copy furnish the FPA Field Officer within 15 days after the month being reported.

b.8 The buyer-farmer-end-user/cooperative shall be required to submit photocopy/ies of the delivery receipt/s issued by the seller of damaged fertilizer and a liquidation report to FPA Central Office indicating the name and addresses of the end-users, grade and volume served and the transfer price if the acquisition is made through a cooperative. The Field Officer should also be copy furnished with these documents by the buyer. No subsequent transshipment permit shall be issued to buyers who have not fully liquidated their previous withdrawals for damaged fertilizers.

b.9 Sweepings/spillages of imported fertilizers bagged in the Philippines which may be and thereafter re-exported to other countries shall be issued the necessary permits by FPA upon application thereof. If these fertilizers are classified as damaged, guidelines in Sections 4.3.2 and 4.3.4 of this shall apply for the pricing, transshipment and disposition.

b.10 Bagging and rebagging of recovered good order fertilizers shall be under the direct supervision of the FPA Regional or Provincial Officer. These products can be sold and classified as regular stocks of fertilizer dealers.

4.3.4 PRICING OF GOOD AND BAD ORDERS

The maximum price for recovered good order fertilizer shall be the same as the previous warehouse price for good order stocks provided it conforms with the standards. However, the maximum price for damaged fertilizers is reduced as follows depending on the extent of natural loss and moisture content based on laboratory analysis results:

a. Damaged fertilizer with nutrient loss of not more than 10% and moisture content of not more than 2%, based on laboratory analysis result shall have a maximum selling price of 70% of the previous warehouse price.

b. Damaged fertilizer with nutrient loss of more than 10% and/or moisture content of more than 2% based on laboratory analysis result shall have a maximum selling price of 50% of the previous warehouse price.

c. Pricing of damaged Solophos fertilizer shall depend on the nutrient loss and appearance. Moisture content as basis for pricing is excluded since this fertilizer has a tendency to become powder below 1% moisture content.

d. Damaged fertilizer shall not be subject for resale.

4.3.5 AUTHORITY TO ISSUE PERMITS TO BUY/TRANSSHIP DAMAGED FERTILIZERS

a. Damaged/bad order fertilizers shall not be released unless properly marked and the buyer shall secure a transshipment permit from FPA Central Office if the quantity is 100 bags or more or from the FPA Field Officer in case of smaller volume upon clearance from Central Office.

b. For the distribution of good order fertilizers, the sales invoices and/or delivery receipts issued by the seller company shall be used as basis in the issuance of permit to transport.

c. In cases wherein damaged fertilizers are to be withdrawn from a certain province and the buyer-end-user's farm is not within the provincial location of the seller's warehouse, the FPA Provincial Officer who has jurisdiction over the farm where the inputs are shall issue the transshipment permit. However, the issuing Officer must notify the FPA Provincial Officer who has jurisdiction of the area of withdrawal of such movement, for proper monitoring. Movement of damaged fertilizers from one region to another should be supervised by the FPA Regional Officers provided it has clearance from FPA Central Office.

d. Sellers shall be held liable for any sale/release of damaged fertilizers to any buyer who has not been issued the corresponding FPA authority/permit.

e. A maximum of 10 bags/50 kgs. of damaged fertilizers regardless of grade and of crop planted will be the basis for computation of per hectare allocation.

4.3.6 REVALIDATION OF PERMIT

Issuance of permits for extension/revalidation maybe granted provided the following are submitted to FPA:

a. Letter request to the FPA Central Office for revalidation of the transshipment permit stating the cause for the delay of withdrawal and/or reasons for not having used the permit previously issued provided there is a clearance from the FPA Field Officer.

b. Certificate of availability of damaged fertilizer stocks issued by the warehouse supervisor/incharge or any responsible official of the seller and a certificate that no portion of the previous request was served. If partial withdrawal was made, the number of bags

partially withdrawn should be reported to FPA Field Officer.

c. The original and duplicate copies (trucker and seller's copy) of the permit previously issued must be surrendered to FPA Central Office.

d. Permit to be issued is valid for 45 days only.

4.3.7 FERTILIZER PACKAGING

The Bureau of Agricultural and Fisheries Products Standard (BAFPS) specifies packing of fertilizer at 50 kg per bag. FPA applies this standard in controlling bag weight. However, considering that the Philippine fertilizer market consists dominantly of small landholders and small end-users, FPA allows packaging of fertilizer in 5, 10, 25 and 50 kg packages at importer, manufacturer and distributor level provided that provisions for the type of bag materials and proper product labeling are followed.

4.4 LICENSE TO REPACK

4.4.1 LEGAL BASIS

Pursuant to the provisions under Section 9 of PD 1144, repacking of fertilizer is prohibited unless duly authorized in writing by FPA.

4.4.2 DEFINITION OF TERMS

a. **Dealer-Repacker** - refers to FPA-licensed dealers duly authorized to engage in retailing traditional solid, inorganic fertilizer, except nitrates, in smaller quantities. Packaging of repacked fertilizers is done in 1, 2 and 5 kilograms.

b. **Distributor-Repacker** - refers to FPA-licensed distributor duly authorized to engage in repacking of traditional, solid, inorganic fertilizer and liquid as foliar fertilizer materials

in smaller quantities such as: 25, 50, 70, 100 and 250 mL.

c. **Traditional inorganic, solid fertilizer** - any fertilizer product with properties determined predominantly by its mineral content or synthetic chemical compounds. It contains considerable amount of at least one of the essential plant nutrients such as nitrogen, phosphorus, potassium and secondary macronutrients or micronutrients.

d. **Supplier** - refers to the source (whether distributor, manufacturer or importer) of fertilizer, which will be repacked in smaller quantities.

4.4.3 COVERAGE

Covers only FPA-licensed dealers and distributors who are authorized to repack traditional solid, inorganic fertilizer generally sold in 50 kg bag.

4.4.4 REQUIREMENTS FOR DEALER-REPACKER

Fertilizer sold in 50 kg bags can be repacked by dealers into packages of one (1), two (2) and five (5) kg.

a. Materials to be used for repacking should be thick, transparent plastic bags durable enough for handling and transport. All repacked materials should be labeled and sealed properly.

b. The bag should be labeled with the following information printed on a piece of paper and inserted inside the bag or printed on the bag itself:
   - Name and complete address of repacker
   - Fertilizer grade
   - Date repacked
   - Net contents
   - Name of supplier
   - FPA license with Repack No.

Note: The label should be visible and legible at all times.

4.4.5 REQUIREMENTS FOR DISTRIBUTOR-REPACKER

a. The fertilizer can be repacked into 25, 50, 70, 100 and 250 g/mL using thick, transparent plastic bags/bottle durable for handling and transport. All repacked materials should be labeled and sealed properly.

b. All information contained in the label must be written in English and/or Filipino.

c. Label must have purple border band of $^{1}/_{8}$ inch for container smaller than 250 mL or 300 g net weight, and ¼ inch for bigger container up to 4 L or 5 kg.

d. For products packed in cardboard boxes or plastic bags weighing 1-5 kilograms, the product information and usage direction should be printed directly on the container with required border band.

e. For products sold in containers smaller than 50 mL, only the product information is required to be printed on the label. This should be printed in the space specified in the sample label. The usage direction should be printed in a separate leaflet or flyer.

4.4.6 LABEL REQUIREMENTS

4.4.6.1 Liquid foliar and specialty fertilizer The label must contain the following:

LEFT PANEL

Trade Name
Guaranteed Analysis:
Total N (%)
Ammoniacal nitrogen (%)
Nitrate nitrogen (%)
Total P_2O_5 (%)
Water-soluble P_2O_5 (%)

Available P_2O_5 (%)
Total K_2O (%)
Water-soluble K_2O (%)

Trace elements and secondary nutrients if there are any (ppm of each element)
Manufacturer / importer, name and address (Annex 2.7a)

MIDDLE PANEL (1)

Trade name, descriptive statement
Artwork (only crops registered)
Net weight / Volume of content
FPA Registration No.: _____
Distributor / repacker, name and address
Date of repacking: _____
Expiration date: _____

MIDDLE PANEL (2)

Direction for use, crops, dosage, frequency, other instructions/information

RIGHT PANEL

Package storage and disposal
Compatibility
Warranty
Net weight / volume of content
Caution:

Keep out of reach of children

Color Band – violet-purple

4.4.6.2 Solid Fertilizer

The bag or container of solid fertilizer shall be marked with the following:

FRONT

Brand Name (with logo)
Guaranteed Analysis:
Total N (%)

Ammoniacal nitrogen (%)
Nitrate nitrogen (%)

Total P_2O_5 (%)
Available P_2O_5 (%)

Total K_2O (%)
Water-soluble K_2O (%)

Secondary nutrients (%), if any
trace elements (ppm of each element; if any)
Name of local and/or foreign manufacturer/importer/distributor and address
FPA Registration No. : _____

(**If organic fertilizer**)
Total NPK (%)
Moisture content (%)
Organic matter (%)
C:N ratio if available

BACK

Name of distributor / repacker:
Address:
Date repacked: _____
Expiration date (if biofertilizers): _____
Content (net mass, in kg)

4.4.7 ISSUANCE OF LICENSE TO REPACK

4.4.7.1 Requirement for license to repack fertilizer

a. Accomplished application form. (p.194 Annex 3.6)
b. Weighing scale at repacking plant and at the point of sale.
c. Repacking fee in the form of postal money order or Manager's check payable to FPA.

4.4.7.2 Validity of license

The license to repack shall be valid for three (3) years. The license, however, shall automatically end its effectivity upon the expiration of the dealership license, unless this is renewed.

4.4.7.3 Application for license to repack shall be filed with the office of the FPA field officer who will conduct inspection and ensure that weighing scales are available at repacking site and at the point of sale. The FPA field officer will then recommend to FPA head office the approval of the application.

4.4.8 OTHER PROVISIONS

a. It is reiterated that sweepings, bad order or damaged fertilizer should not be repacked for resale.
b. Once a 50-kg fertilizer bag is opened, all the contents should be repacked immediately to prevent deterioration of its quality and adulteration. It is prohibited to keep a 50 kg bag open and repacked only as the need arises.

4.5 INCENTIVES

4.5.1 VAT EXEMPTION

Pursuant to the provisions of Revenue Regulations No. 7-95 - Consolidated Value-Added Tax in relation to the stipulations of Republic Act No. 7716 - Expanded Value-Added Tax Law.

"Sale or importation of fertilizer x x x shall be exempted from Value-Added Tax coverage."

Requirements:

a. Importer must be licensed by FPA and the product being imported must be registered with FPA.

b. Written request with following attachments

- Commercial invoice
- Bill of lading
- Packing list
- Laboratory analysis of sample taken from the country of origin prior to its shipment to the Philippines must be conducted by Societe Generale Surveillance (SGS) or any independent laboratory in the country of origin
- Disposition report of previous importation

c. For potassium nitrate and other nitrates (Annex 2.9)

- Above-stated documentary requirements
- license and permit to import from PNP-FED
- Disposition report of previous importation
- List of target buyers and name of mango contractors; if contracted, a copy of contract
- Location of plantation, area and number of fruit bearing trees
- A scheme of fertilization of trees after harvest should be outlined and disclosed

4.5.2 DUTY FREE IMPORTATION OF FERTILIZER UNDER AFMA (Annex 4.3)**, REVISED GUIDELINES IN TERMS OF SANITARY AND PHYTO-SANITARY REGULATIONS** (Annex 4.4) **and NATIONAL SINGLE WINDOW** (Annex 4.5)

FPA Memo Circular on duty free importation of farm inputs such as fertilizer is

specified under Joint DA Administrative Order No. 1.

4.5.3 COOPERATIVE Member - Area Marketing Cooperatives are charged only 50% of the dealers application fees.

4.5.4 DEALER'S ASSOCIATION MEMBERS - Dealers who are members of dealers' association are entitled to a discount of 20% of the application fee.

4.6 PRODUCT QUALITY STANDARD AND ITS CONTROL

4.6.1 LEGAL BASIS

Section 6, II-7 of P.D. 1144 mandates FPA, ***"To regulate and control the quality of the different grades of fertilizers and set new grades when necessary."***

4.6.2 QUALITY STANDARDS

To strengthen the quality standards, the FPA uses as reference the Food and Agriculture Organization (FAO) and Fertilizer Control Order (FCO) specifications as the minimum standards for registration purposes, particularly for traditional fertilizer products. Annex 4.7 present samples of FAO and FCO specifications.

The data on specifications especially for new fertilizer grades submitted by the registrant is validated by FPA Analytical Services Laboratory or other FPA-accredited laboratories. If the applicant-registrant has claims in the product that cannot be analyzed by the FPA Analytical Services Laboratory or by any of the FPA-accredited laboratories, the independent laboratory analysis from the country of origin duly authenticated by the Philippine Embassy, will be recognized and adopted by FPA.

a. Physical Qualities

a.1 **Solid, inorganic fertilizer** - is in the form of powder, granules, pellets, prills or crystals, and is dry, free-flowing and free from lumps, visible impurities and extraneous matter.

The moisture content is not more than 2.0% for both coated and uncoated.

a.2 **Organic fertilizer** - the organic materials (of plant and/or animal origin) is no longer recognizable, and is soil-like in texture. Its moisture content is not more than 35%.

a.3 **Liquid fertilizer** - the plant nutrients are in suspension, slurry or in solution form.

a.4 **Organic-Based Foliar Fertilizer** - liquid fertilizer with solvent portion of the solution contains plant, animal and natural extract that may have carbohydrates, proteins, fatty acids, hormones and plant growth promoters as claimed by the manufacturer.

b. Chemical Qualities

The plant nutrient content of the fertilizer should conform with the guaranteed analysis specified on the product label. The guaranteed analyses of fertilizer nutrients are expressed in terms of:

- **Nitrogen** – as % total N, Ammoniacal N, and % Nitrate N

- **Phosphorous** – as total P_2O_5 (%) and as % available P_2O_5 (i.e H_2O soluble + citrate-soluble P_2O_5)

- **Potash** – as total K_2O (%) and as % water soluble K_2O

b.1 INORGANIC FERTILIZER

b.1.1 **Solid**

The permissible minimum tolerance of each of the guaranteed nutrient content should not be less than 98% of each of the major nutrients as indicated in the label.

b.1.2 **Liquid**

A 10% aqueous solution of the fertilizer material should not have a pH of less than 5.0 but not more than 8.0.

b.2 ORGANIC FERTILIZER

The total organic matter content should not be less than 20% (oven-dry basis) with a C:N ratio of 12:1. (Tables 2.1, 2.2, 2.3, 2.4 and 2.5 shows the total N, P, K, allowable pathogens and heavy metal contents, and no weed seeds).

c. Product Packaging

The PNS standard specifies the packaging of solid fertilizer in a 50 kg bag. FPA, however, in Memorandum Circular No. 93-04 dated June 9, 1993, authorized, through a licensing procedure, FPA-licensed dealers to repack fertilizer into one (1), two (2) and five (5) kg packs. Moreover, FPA agreed on the packaging of fertilizer, at the importer, manufacturer and distributor level in five (5), ten (10) twenty five (25) and fifty (50) kg. bag, provided the

provision for the type of bag material and product labeling is followed. For liquid fertilizers, 25, 50 70, 100, and 250 ml repacking volumes are allowed.

d. Marking / Bag Label

The PNS/FPA standard markings on fertilizer bags shall include the following information:

- Name of material, brand name
- FPA product registration number
- Guaranteed composition of nutrient(s)
- Net mass in kilograms (kg)
- Business name
- Name and address of manufacturer, importer, repacker
- Country of origin and manufacturer, if imported
- For nitrate-based fertilizer - the warning "not recommended for crops under flooded or submerged soil conditions"
- Information on "optimum storage requirements" should be placed on the label in cases of organic fertilizer, soil conditioners and soil amendments

4.7 ENFORCEMENT OF QUALITY STANDARDS

4.7.1 DEFINITION OF TERMS

a. **Mandatory enforcement -** applies to major imported or locally produced fertilizers which are traditionally used for agricultural purposes in the Philippines, namely: urea, ammonium sulphate, 16-20-0, 14-14-14, muriate of potash, ammonium chloride and di-ammonium phosphate. The list of fertilizer under this category shall be expanded whenever deemed necessary (Table 2.6).

b. **Selective enforcement -** shall apply to all locally produced and imported fertilizers not covered by mandatory enforcement.

4.7.2 MANDATORY ENFORCEMENT ON IMPORTED FERTILIZER

a. Importation of fertilizer as enumerated above under mandatory enforcement, should be accompanied by a Certificate of Analysis done by SGS or any independent laboratory in the country of origin of the manufacturer.

b. Quality Control Inspection of imported fertilizer shall be done by FPA, on-the-spot basis, as follows:

- FPA field personnel shall gather fertilizer samples at either one or all of the following places: (Sampling procedure in p. 222 Annex 4.6)

    1. Vessel
    2. Bagging site
    3. At importers' warehouse. Importer shall be given prior notice and sampling shall be conducted in the presence of the importer or his authorized representative.

- Samples shall be analyzed by FPA Analytical Laboratory or in any of the following FPA recognized laboratories in Manila, namely: PIPAC, BSWM, SGS, PCA, BPI, JEFCOR and SentroTek, in accordance with the choice of the importer(s). Samples will be analyzed for nutrient content, moisture, particle size, and when applicable, biuret, ash and heavy metals, if needed.

- The analysis fee shall be paid by the importer upon applying for VAT Exemption Certificate.

- Analysis result shall be made available to the importer immediately upon release by the laboratory.

c. FPA shall also inspect bag weights accuracy and conformity of shipment to packages and marking requirements under PNS. Minimum requirements on markings may be waived by FPA provided importers inform FPA seven (7) days prior to arrival of shipment and shall provide justifications acceptable to FPA as such.

4.7.3 MANDATORY ENFORCEMENT ON LOCALLY MANUFACTURED FERTILIZER (GRANULATED, BLENDED OR COMPACTED)

a. Local manufacturer of fertilizer grades enumerated under the mandatory enforcement clause is required to submit to FPA a Certificate of Analysis for each product formulation every quarter. The analysis shall include nutrient content, moisture, particle size, and when applicable, biuret, ash and heavy metals, if needed.

b. In addition, quality control inspection of locally manufactured fertilizer shall be done by FPA, on-the-spot basis, under the rules and procedures stated in the Mandatory Enforcement for Imported Fertilizer.

4.7.4 SELECTIVE ENFORCEMENT ON IMPORTED FERTILIZER

Imported fertilizer not covered by mandatory enforcement is subject to quality control inspection by FPA on-the-spot basis. The same provisions and procedures under the mandatory enforcement for imported fertilizers shall be followed.

4.7.5 SELECTIVE ENFORCEMENT ON LOCALLY MANUFACTURED FERTILIZER

a. Locally manufactured fertilizer not covered by mandatory enforcement shall be subject to the FPA's quality control inspection on-the-spot basis.

b. Designated FPA field personnel shall gather fertilizer samples at either one or both of the following places: (Sampling procedure in p. 222 Annex 4.6).

b.1 Port of discharge

b.2 Manufacturer's warehouse: The manufacturer shall be given prior notice if samples are to be taken. Sampling shall be done in the presence of the manufacturers or his authorized representative.

c. Samples shall be analyzed by FPA Analytical Laboratory or any of the following FPA recognized laboratories : PIPAC, PCA, BSWM, BPI, JEFCOR, SGS and SentroTek.

d. FPA shall also inspect weight accuracy of locally manufactured fertilizer and conformity to packaging and marking requirements under the PNS. Minimum requirements on markings may be waived by FPA provided the manufacturer gives prior notice and acceptable justification to FPA.

4.8 SELECTIVE ENFORCEMENT ON FERTILIZER DEALERS AND DISTRIBUTORS

a. Imported and locally manufactured fertilizer being sold by dealers and distributors are subject to on-the-spot quality control inspection by FPA.

b. Designated FPA field personnel shall gather fertilizer samples from dealers' and distributors' outlets and warehouses. (Sampling procedure p. 222 in Annex 4.6).

c. Samples shall be analyzed as to product specifications and be checked for weight accuracy and conformity to packaging and marking requirements.

4.9 FERTILIZER QUALITY CONTROL MONITORING

4.9.1 PRODUCT SAMPLING

In the course of quality control inspection sorties, FPA field personnel are authorized to gather fertilizer samples (Sampling procedure p. 222 in Annex 4.6) on an on-the-spot basis, for laboratory analysis. At the importer or manufacturer's level, prior notice shall be given by the FPA personnel to secure entry to the premises, if samples are to be taken. It shall be done in the presence of the importer, manufacturer or designated representative. One third of the samples will be sealed by the FPA personnel and will be kept by the owner for future reference.

4.9.2 TESTING/LABORATORY ANALYSIS

a. Product samples will be analyzed in the laboratory for the following: nutrient content, moisture, particle size, and when applicable, biuret, ash content and heavy metals, if needed. The PNS designated this analysis as testing. The method of analysis follows the procedures prescribed by the PNS according to the Product Standards.

b. Analysis of the samples will be done at FPA Analytical Laboratory or in any of the FPA recognized laboratories chosen by the importer: BWSM, PIPAC, BPI, JEFCOR, PCA,

SGS and SentroTek. Analysis fee will be shouldered by the importer/manufacturer.

c. If the analysis establishes that the nutrient content is below standard specifications, FPA shall declare the batch to be “off specification” or “bad order” fertilizer. In which case, it should be disposed directly to end-users at a discounted price. Bag markings should indicate that the contents are “off spec” or “bad order”. Also, an “**X**” marking at the front and back of the bag establishes that the contents are such.

Chapter V

FERTILIZER INFORMATION AND STATISTICS

5.1 BASIC POLICIES

5.1.1 One of the broad powers that PD 1144 bestowed on FPA is monitoring fertilizer use development trade information and statistics, monitoring activities which include the continuous assessment of the fertilizer supply situation, both domestic and worldwide, collection of data on sales, inventory levels, prices, and the use of fertilizer at the farm level.

5.1.2 Data and information on fertilizer usage and trade are collected and analyzed for use by FPA in its planning and policy formulation and for dissemination to the concerned stakeholders.

5.2 STANDARDIZATION OF REPORTING SYSTEM

The mechanics employed by FPA in collecting data from the different segments of the fertilizer sector is either one or combination of the following approaches:

a. Importers and domestic producers are required to submit data and standard format prepared by FPA. Data required are supply/demand reports and fertilizer sales and inventory reports.

b. All fertilizer dealers are required to submit to their respective FPA field officer, every 7th of the month, reports on volume of sales, prices, and stock inventory by fertilizer grade.

5.3 FERTILIZER AND PESTICIDE WATCH (FERTILIZER COMPONENT)

5.3.1 BACKGROUND

The Fertilizer and Pesticide Watch is a systematic and integrated approach to information generation and dissemination, policy formulation and program implementation of the fertilizer and pesticide.

5.3.2 OBJECTIVES

The objectives of the fertilizer component of the Fertilizer and Pesticide Watch are to:

a. monitor supply, distribution, demand, prices and quality of fertilizer;

b. intensify campaign against unregistered fertilizer and unlicensed handlers;

c. disseminate timely and accurate information to policy makers and users; and

d. strengthen linkages with government agencies, NGOs, and other concerned organizations/agencies.

5.3.3 COVERAGE

The system shall cover data on:

a. Supply, distribution, demand, prices and quality of all fertilizer products;

b. Geographical sources which include municipal, provincial, regional and national levels; and

c. Importer, manufacturer, producer, formulator, repacker, processor, exporter, indentor, distributor, dealer, and handler of fertilizer.

5.3.4 **MAJOR COMPONENTS**

a. **Database management** - database on supply, distribution, demand and prices of fertilizer shall be established and continuously developed and maintained.

b. **Information dissemination** - quad-media, newsletters, leaflets, flyers, info kits and other Information and Education Communication (IEC) materials will be used to ensure extensive reach of message to all target beneficiaries.

c. **Capability building** - training on the program implementation of the Fertilizer and Pesticide Watch System through the Regional and Provincial Officers and identified institutions shall be conducted nationwide.

d. **Institutional Linkages** – Institutional linkages with government organizations, farmers associations, private sector, academe and other concerned individuals or groups will be established through the execution of a Memorandum of Agreement/Understanding.

e. **Quality Standard Parameters for Fertilizer –** Random sampling of products from producers, distributors and dealers will be done to ensure that quality conforms to the standards, off-specs fertilizer shall be issued with Stop Move/Stop Sale Order.

f. **Proper Positioning of Stocks**

A Memorandum of Agreement (MOA) with the fertilizer industry and FPA shall take into consideration the following parameters:

f.1 Seasonal condition - effective and efficient movement of material surplus to depressed areas even during the rainy seasons

f.2 Timely initiative or incentive - promoting door-to-door delivery to end- users

f.3 Encouragement for dealers/distributors to serve as a conduit to expedite the accessibility of credit facilities to farmers/end-users.

5.3.5 IMPLEMENTATION

The FPA Regional Officers (PDOs IV), through the Provincial Development Officers (PDOs II), Regional Information Officers (RIOs) and the Central Office should perform actively as the implementors.

5.3.6 MONITORING FORMS

a. FPW1 - Field Fertilizer Price Report (Annex 5.1)
b. FPW2 - Company Fertilizer Price Report (Annex 5.2)
c. FPW3 - Organic Fertilizer Price (Field) Report (Annex 5.3)
d. FPW4 - Organic Fertilizer Price (Company) Report (Annex 5.4)
e. FPW5 - Monthly Report on Fertilizer Stocks, Sales and Prices (Annex 5.5)

Chapter VI

TRAININGS

6.1 ACCREDITATION OF FERTILIZER/PLANT NUTRITION RESEARCHERS

6.1.1 GENERAL INFORMATION

FPA conducts trainings for fertilizer dealer/handler as pre-requisite to licensing and for accreditation of fertilizer/plant nutrition researchers. Researchers who perform research works on fertilizer and plant nutrition to generate biological efficacy or other related data for a product in support to FPA registration are required to attend a training workshop for accreditation.

The training workshop is designed to give researchers a deeper understanding of the nature and importance of bioefficacy test protocol, to update them on the latest/established experimental design and statistical analysis and develop their technical competence and personal confidence in interpreting research results and statistical data, and to enhance their scientific writing skills.

6.1.2 PROCEDURE FOR ACCREDITATION OF RESEARCHERS

The applicants are required to submit a filled-up application form together with a copy of his/her bio-data for evaluation. The applicant must apply for accreditation on the discipline, well supported with his academic specialization, training, published research works, current research undertakings, and years of research experience to indicate competence. If the

applicant qualifies, he/she will be invited to attend the Training for Accreditation of Researchers".

Expansion of accreditation for additional research discipline (i.e. Fertilizer/Plant Nutrition plus Pesticide) may be granted upon request. However, the applicant must attend the training for pesticide researchers.

6.1.3 GUIDELINES FOR FPA-ACCREDITED RESEARCHERS

a. Accredited researchers should only conduct experiment on the discipline accredited for, which should be duly covered by an approved Experimental Use Permit.

b. Accredited researchers are required to conduct a total of five (5) experiments at a time. In cases where more than five (5) products or crop(s) trials are to be handled at one cropping season, he/she must seek prior approval from FPA.

c. Test results generated by accredited researchers employed by chemical companies will not be honored to support product registration. An independent accredited researcher must be contracted to conduct the product efficacy trial based on a Memorandum of Agreement.

d. Accredited researchers employed by any Government Research Institutions and/or State Colleges/Universities (SCUs) and whose conduct of research for the data generation for product registration purposes require the use of government facilities and time should have their research project(s) approved by the head of the concerned institution.

e. Research Terminal Reports by accredited researchers should be accompanied with a

certification that the study followed Good Agricultural Practices. This certification should be duly signed by the researchers and attested by the FPA-PDOs who monitored the experiment (Figure 2.1)

f. Accredited researchers are requested to submit the report one (1) month after the termination of the field test.

6.1.4 FEES

All qualified researchers (after attending the Training for Researchers) will be charged an accreditation fee of P1,000.00 for the first discipline and P200.00 each for every additional discipline valid for two years. However, as an alternative, a payment of P500.00/year will also be allowed for the first discipline and additional P100.00 for each of the subsequent discipline for two (2) years.

6.2 ACCREDITED SAFETY DISPENSER FOR FERTILIZER AND PESTICIDE

6.2.1 GENERAL INFORMATION

In support to the national government's efforts to increase agricultural production, an Accredited Safety Dispenser (ASD) training program is being implemented. The objective is to educate the agricultural sector on the proper and efficient use of fertilizer. The said training will enhance the skills of the agricultural dealer/retailer and likewise provide them with concrete information about product knowledge, input use, storage and handling general shop management, demand forecasting. Furthermore, it will professionalize the agro-inputs trade and enable the retailers/dealers to become effective and efficient suppliers of the needed agricultural inputs to farmers.

6.2.2 PROCEDURE

All applicants for fertilizer/pesticide dealership /retail/outlet license are required to attend the ASD training for fertilizer and pesticide with examination. A certificate of completion/ attendance will be issued to all participants after the training proper.

The schedule of the said training in different regions/provinces shall be disseminated through the respective FPA Regional and Provincial Officers.

6.2.3 General Guidelines

a. All applicants for fertilizer/pesticide dealership/retail/ outlet license must have an ASD-trained employee and must be trained as such to advise buyers on handling and storage of fertilizer and safe use and handling of pesticide at the store or during business operation of Fertilizer and Pesticide Accredited Network Dispenser Individual Business Operators (FPAND-IBOs).

b. The ASD is required to be personally present at the store during business hours.

c. The ASD should keep records of sale and disposition of fertilizer/ pesticide and make them available for inspection by FPA upon request.

d. Non-compliance with the requirement to employ an ASD by a dealer or be trained as such, for Individual Business Operators (IBOs) shall preclude the handler from selling any fertilizer/pesticide products in the store or in their business operation.

e. Importers/manufacturers/registrants/distributors are prohibited from supplying fertilizer/pesticide products to dealer stores with no ASD. The same handlers, particularly their mother companies,

are prohibited from supplying fertilizer/pesticide products to IBOs who are not accredited by FPA as an ASD.

6.2.4 Training and Issuance of ASD Accreditation Card

a. Applicants for ASD training should at least be high school graduate, 18 years of age or older.

b. ASD trainees should take the pre- and post-test to be given before and after the training to determine the progress of their learning and the effectiveness of training.

c. Accreditation shall be accorded to individuals who completed the ASD training, filed the application and paid the accreditation fee.

d. ASD accreditation fee shall be six hundred pesos (P600.00) valid for three (3) years and renewable on the date of issuance of the accreditation card.

e. The amount of training fee depends on current rate subject to assessment on a cost recovery basis. Accreditation fee shall only be collected from successful trainees based on certificate of successful completion of the training course.

6.3 MANGO CONTRACTORS TRAINING

6.3.1 GENERAL INFORMATION

A training is required to mango contractors, growers and spray crews in their acquisition and use of potassium nitrate and other nitrates as mango flower inducer.

The training is designed to train these handlers on the correct use of potassium nitrate as mango flower inducer and also to develop their awareness on the safe and judicious use of fertilizers and pesticides.

Chapter VII

PENAL PROVISIONS AND ENFORCEMENT ACTION

7.1 PENAL PROVISIONS

7.1.1 ADMINISTRATIVE SANCTIONS

Administrative sanction shall be imposed for violation of any of the provisions of P.D. 1144 and its implementing rules and regulations.

Penalties

- Suspension, revocation and cancellation of any license, authority or registration issued by FPA
- Closure of the establishment
- Issuance of Stop Sale, Use, Move and Hold Order
- Confiscation/seizure of products and/or effects as subject of the offense
- Reprimand explanation and warning
- Administrative fine of not less than P5,000 but not more than P20,000

Administrative sanctions shall be imposed by FPA against all persons or entities who shall violate or refuse to abide by the provisions of the pertinent directive on fertilizer product registration or those who violate or shall refuse to abide by the provision of the circulars.

a. **Explanation and warning**

Offenders, especially those who committed first offense, are either allowed to present themselves and explain the circumstances of the violation committed. Mostly, these first offenders are warned. Subsequent commission of violating, however, shall be dealt with sternly.

b. **Cancellation of registration**

c. **Grounds for revocation of license**

c.1 Gravity of the offense committed

c.2 Repeated commission of the offense/ violation

c.3 Continued defiance or refusal to cooperate with FPA in the implementation of its rules such as refusal to allow entry to premises during investigation or routine inspection.

d. **Guidelines for suspension of license**

Relative to the suspension of FPA license of handlers who violate rules and stipulations under the FPA Stop Sale, Use, Move and Hold Order, the following are the guidelines in implementing the suspension order:

d.1 Copy of the suspension letter to be served personally by the FPA Regional or Provincial Officer concerned. It should be received by the owner or the designated representative of the establishment or whoever is manning the store.

d.2 In case of the refusal to receive suspension order, FPA Officers should seek the assistance of the local officials

or law enforcement officers to witness the serving of the suspension letter.

d.3 Conduct thorough inventory and pack the fertilizer stock in question and have the listing signed by FPA Officer and the owner/ store's representative.

d.4 Inform the store owner/representative that violation of the suspension order may lead to revocation of license.

d.5 Inform the respective supplier of the suspension.

d.6 Install notice of suspension prominently.

d.7 Check the activities of the suspended store to ensure that no fertilizer business takes place within the period of suspension.

d.8 Notice of lifting of suspension should be served within a week before the end of the suspension order.

e. **Denial of request for renewal of license**

f. **Denial of request for VAT Exemption certificate for fertilizer import**

Such denial is among the administrative sanctions that FPA may impose against those who violate FPA rules.

g. **Cancellation/recall of VAT Exemption Certificate if already issued.**

7.1.2 CRIMINAL ACTION

Based on the gravity of the offense that include, but is not limited to, selling of fake, adulterated or unregistered fertilizer products and smuggling of fertilizer, criminal action may be instituted against violators of any of the

provisions of P.D. 1144 and its implementing rules and regulations. The usual procedures for prosecution under special laws shall be observed and the litigation shall be conducted by appropriate court.

Penalties

- Imprisonment of not less than 15 years and 1 day or more than 20 years if the amount involved is more than P50,000.
- Imprisonment of not less than 10 years and 1 day or more than 15 years if the amount involved is P10,000 or less as well as a fine ranging from the amount equal to the value involved to 3 times of the value but not less than P5,000 nor more than P20,000.
- A fine of P5,000 but not more than P10,000 for other violation where the amount involved cannot be determined, provided, that the falsification of public or commercial document is committed by reasons or on the occasion of committing any act punishable herein, the offender shall be imposed the maximum fine and term of imprisonment as prescribed above. Criminal prosecution shall be without prejudice to administrative sanctions which the FPA may impose. If the violation is committed by a corporation, firm, partnership, cooperative, association or any other entity, the penalty shall be imposed upon the guilty officials or officers of such corporation, firm, partnership, association or entity.

7.2 ENFORCEMENT ACTION

7.2.1 STOP SALE, USE OR MOVE AND HOLD ORDER

Stop Sale, Use, Move and Hold Order is issued to cover fertilizer inventories that are confirmed, through inspection and investigation, to be either fake, adulterated, unregistered or underweight or when a fertilizer product is being offered for sale or use in violation of FPA rules. The owner or custodian shall be ordered to hold the subject stock at a designated location after proper accounting, marking and acknowledgement by the owner or authorized representative. The order shall remain in force until the law or pertinent provision violated shall have been complied with or until the said violation shall have been resolved or dispensed with by the proper authority.

7.2.2 INSPECTION OF ESTABLISHMENT OR LOCATION WHERE FERTILIZERS ARE STORED

Officers and employees duly designated by the FPA Executive Director are authorized to enter at any given time, any establishment or location where fertilizers are being stored for distribution and sale, for the purpose of inspection and obtaining samples for laboratory analysis and specimen of containers or labels of subject products.

Before such inspection, FPA representative(s) must present appropriate credentials to the owner, operator or any other agent in charge of the establishment or any other place where fertilizers are being distributed or sold. If the FPA representative(s) obtains any sample, he should give to the store owner, operator or person in-charge, a receipt describing the

sample obtained before leaving the premises and if requested, a portion of each sample equal in volume and weight to the portion left. Once the samples are analyzed, the store owner, operator or person in-charge must be promptly furnished with the result of analysis.

7.2.3 SUBMISSION OF REPORTS

Any person or handler who sells or offers for sale, delivers or offers to deliver, any fertilizer or related product/s subject to P.D. 1144, shall upon request of any FPA representative, duly designated by the Executive Director, to furnish the following reports:

a. Importation
b. Production
c. Sales/Prices
d. Export
e. Disposition (for importers of nitrates for agricultural usage)

Failure to submit the said data will deter the issuance of license for renewal.

7.2.4 QUALITY STANDARDS

a. **Imported and locally manufactured fertilizer**

Fertilizer imports should be accompanied by a Certificate of Analysis from the manufacturer while local producers are required to submit to FPA, a Certificate of Analysis for each fertilizer formulation every year, if possible. The analysis should include nutrient content, moisture, particle size and when applicable, biuret and ash.

Quality control inspection and product sampling shall be conducted by FPA on-the-spot at any place or location. Samples taken

will be analyzed only at FPA recognized and accredited laboratories. Analysis fee shall be charged to the importer/manufacturer to be paid during application for VAT Exemption Certificate issued by FPA. Importer/manufacturer shall be provided a copy of the laboratory analysis result immediately.

FPA shall also inspect the bag weight accuracy and conformity with packaging and marking requirements under FPA and the PNS. However, minimum requirements on bag markings may, be waived provided, importers inform FPA seven (7) days prior to arrival of shipment and that there is a justifiable reason acceptable to FPA.

b. **Fertilizer distributors and dealers**

Imported and locally manufactured fertilizers that are being sold by distributors and dealers are subject to an on-the-spot quality control inspection and random weighing by designated FPA personnel.

The designated FPA personnel or field officers shall gather fertilizer samples for laboratory analysis. Samples will be analyzed as to product specification and conformity to packaging and marking requirements.

c. **Provisions governing restricted fertilizer products**

c.1 Inspection report of FPA Field Officer is submitted to FPA Central Office for the issuance of a license as a mango contractor after other requirements are met. The mango contractors' License shall be effective for 1 year and renewable every year thereafter.

c.2 Mango contractors without FPA and PNP-FED license to distribute potassium nitrate and other nitrates are prohibited from selling or distributing such commodities.

c.3 All movements of potassium nitrate and other nitrates, which are covered under Executive Order No. 522 shall be under the supervision of PNP-FED.

c.4 All growers, mango contractors without FPA license as “mango contractor” are not allowed to use potassium nitrate and other nitrates. However, they can use formulated flower inducer.

c.5 Potassium nitrate and other nitrates have to be registered with FPA if used in crops other than mango.

c.6 Location of the plantation, area, number of fruit bearing trees and a copy of the contract if farm is contracted are needed for VAT exemption for importation (Annex 2.9)

Aside from penalties imposed by PNP-FED for violators of provision under Executive Order No. 522, FPA may impose sanctions against violators of this book which include, but are not limited to, the issuance by FPA of a Stop Sale/Stop Move Order or the suspension or revocation of business license and imposition of such other sanctions that FPA is empowered under its charter, after due notice and hearing.

7.3 SPECIAL COMMITTEE TO INVESTIGATE MALPRACTICES IN THE FERTILIZER INDUSTRY – FPA MEMORANDUM NO. 92-01

On April 10, 1991, the Department of Agriculture and the Fertilizer Industry Association of the Philippines (FIAP) forged an agreement reiterating mutual cooperation in the implementation of fertilizer laws. One of the prominent features of the agreement is a provision recognizing the problem of underweighing of fertilizer and other unethical and unfair practices which are committed by some members of the fertilizer industry. In the same agreement, the parties made a mutual commitment to stop these malpractices. It is pursuant to this agreement that a Special Committee is created to implement the provisions of the said Memorandum of Agreement.

7.3.1 LEGAL BASIS

Sec. 6, Par. 3 of P.D. 1144 states:

- FPA shall have jurisdiction over existing handlers of pesticides, fertilizers, and other agricultural chemical inputs. The FPA shall have the following powers and functions:

  x x x x x

- "3. to call upon any department, bureau, office, agency or instrumentality of the government including government-owned or controlled corporation or any officer or employee thereof and on the private sector for such information or assistance as it may need in the exercise of its powers and in the performance of its functions and duties."

7.3.2 MEMBERS OF THE SPECIAL COMMITTEE

Chairman	-	Executive Director - FPA
Vice Chairman	-	President, FIAP/OFERMANA[a]
Members	-	2 representatives each from FPA, FIAP and

OFERMANA[a], and 1 representative from DTI.

[a] If the concern is about organic fertilizer.

7.3.3 JURISDICTION AND SCOPE OF RESPONSIBILITIES OF SPECIAL COMMITTEE

a. Oversees the investigation of reported violations, malpractices, unethical and unfair trade practices on the fertilizer industry. These violations and malpractices shall include, but are not limited to underweighing of fertilizer, adulteration, selling of bad order or good order fertilizer and such other schemes and activities that are inimical and disadvantageous to the farmers.

b. Recommends measures to prevent the occurrence of these violations and malpractices.

c. Recommends sanctions to be imposed on erring parties. It is, however, understood that the powers and prerogatives vested on the Special Committee, by virtue of this Memorandum Circular, shall not in any way diminish the power of FPA. It can still act on its own if circumstances warrant.

7.3.4 PROCEDURE OF INVESTIGATION

a. The memorandum of the Special Committee shall immediately designate the members of the investigation team to investigate, report, verbal or otherwise, a particular violation.

b. If in the process of the investigation, a person or entity is caught in illicit activities involving fertilizer – underweight, adulterated and the like, he shall be presumed to have committed a violation unless proven otherwise.

c. A distributor or dealer caught in illicit activities involving fertilizer shall be presumed to have

committed a violation unless he can show documentary evidence proving that the supplier committed the violation. In this case, the supplier should replace the fertilizer immediately.

d. The investigation team shall immediately report the result of the investigation to the Special Committee which in turn, will submit its recommendation to the FPA and FIAP/OFERMANA.

e. The FPA and FIAP/OFERMANA shall immediately act on the recommendation of the Special Committee.

GLOSSARY OF TERMS

Actual Production Process - a brief description with schematic diagram of the production process indicating the percentage of raw materials used.

Area Distributor - any person/entity who sells fertilizer products to dealers and outlets in a certain area such as Luzon, Visayas and Mindanao Islands.

Biological Fertilizer - microorganism that can fix and/or release any of the essential elements in the air or soil for plant growth.

Brand - a term, design or trademark used in connection with one or more grades of fertilizer.

Brand name - a term, name or trademark with logo which may or may not be Intellectual Patent Office (IPO)-registered and used in connection with one or more grades of fertilizer. FPA reserves the right to approve and disapprove product brand name based on the list of products registered with FPA.

Bulk-Blended Fertilizer - customized mix or blended fertilizer obtained by physically mixing various grades of finished fertilizers suitable to the specific needs of the farmer based on his soil analysis with previous arrangement as approved by FPA.

Bulk Fertilizer - non-packaged inorganic fertilizer

Bulk Handler - any person engaged in handling the fertilizer either in bulk or in bags which include bagging and hauling from the port to the warehouse.

Certificate of Registration - written approval granted for registered products.

Compost / Soil Conditioner - an organic fertilizer material or any decomposed product of plant or animal origin, which is not enriched with microbial inoculants, plant growth substances and/or chemical ingredients to increase its nutrient content. It has a total NPK of 3-4%.

Controlled Release Fertilizer - is a fertilizer which provides nutrients slowly throughout the growing season or longer. Most slow release fertilizers are condensation products of urea and aldehydes and coated traditional fertilizers with sulfur, polymers, nitrification inhibitors, etc.

Damaged/Bad Order Fertilizers - are fertilizers which do not conform to the standard requirements for good order fertilizer. This includes sweepings, water damaged, fertilizer contaminated by inert substances but still retain their fertilizing qualities.

Dealer - refers to fertilizer establishments or distributors to retail products authorized by the fertilizer companies.

Dealer-Repacker - refers to FPA-licensed dealers duly authorized to engage in retailing traditional, solid, inorganic fertilizer in smaller quantities except nitrates. Repacking of solid fertilizer in 1, 2 and 5 kg is at the dealers' level.

Decomposers – are biologically active products containing microorganisms, fungi, and earthworms that hasten the decomposition of plant and animal residues into organic fertilizer, compost or soil conditioner.

Declared Product Composition – a statement assuring the nutrient contents expressed in terms of the minimum percentage as claimed in the manufacturer's level.

Disposition of Damaged Stocks - distribution of fertilizer through sale, bid awards, donations, and all other legitimate acts to do away with damaged stocks.

Distributor - any person who sells fertilizer products to dealers and outlets only.

Distributor-Repacker - refers to FPA-licensed distributor duly authorized to engage in repacking of traditional, solid, inorganic fertilizer and liquid as foliar fertilizer materials in smaller quantities.

Exporter - any person who sells fertilizer products to other countries.

Experimental Use Permit- shall be applied for and approved before any bioefficacy field test is conducted by accredited researcher following treatments and protocols set by FPA to generate the data required for registration.

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 nutrients to improve plant nutrition, growth, yield or quality, or for promoting a chemical change that enhances plant nutrition and growth.

Fertilizer Handlers - refer to exporter, importer, import-consolidator, manufacturer, processor, bulk-blender, formulator, repacker, distributor, indentor, bulk-handler, dealer and dealer-repacker of fertilizer inputs.

Foliar Fertilizer - fertilizer nutrients soluble in water which may be applied directly to the aerial portion of plants. When problems of soil fixation of nutrients exist, foliar application constitutes the most effective means of fertilizer placement. The most important use of foliar sprays has been in the application of micronutrients.

Formulated Flower Inducer – FPA-registered product, in solid or liquid form, nitrate or ethylene/ethephon-based, that has been diluted with water and/or other substances which are not harmful to mango trees, used for the purpose of inducing mango trees to flower.

Fortified/Enriched Organic Fertilizer - any decomposed organic product of plant or animal origin enriched/spiked with microbial inoculants, plant growth substances and/or chemical ingredients to increase its nutrient content so that its total NPK minimum value is 8%.

Full Registration - type of registration granted when all administrative and technical requirements are satisfactorily complied with which includes two (2) seasons of efficacy tests with significant results on a representative crop.

Genetically Modified Organisms (GMOs) - organisms that are modified by biotechnology or recombinant DNA technology. Such organisms include viroids, viruses, cells, or whole

organisms, which may pose hazard to human health and environment.

Grade - refers to the minimum percentage of nitrogen (N), available phosphorus (P_2O_5) and soluble potash (K_2O), stated in their order and other macronutrients and micronutrients that are present in appreciable amounts, i.e. Ammonium sulfate (21-0-0), Ammonium phosphate (16-20-0) and Compound Fertilizer (14-14-14).

Guaranteed/Declared/Certified Composition - a statement assuring the nutrient contents expressed in terms of the minimum percentage as claimed in the manufacturer's label.

Heavy Metals - unordered group of metals, metalloids, and non-metals (Ex. *arsenic, cadmium, chromium, manganese, mercury, lead, selenium, zinc, copper, molybdenum* and *nickel)*, which when present in concentration above the allowable tolerable level as plant nutrient are toxic. As important environmental contaminants/pollutants, heavy metals can cause recognizable toxic effects or a diminution of amenity and quality of life.

Import Consolidator - any person who represents and assists eligible agricultural enterprises which have small size orders or lack direct import experience.

Importer - any person engaged in the importation of fertilizer as a business but sells to distributors.

Importer-End User - refers to commercial plantations, which import and use the fertilizers directly for their consumption and private research institutions or companies that import or use fertilizers for testing purposes.

Indentor - any person who orders fertilizer products from suppliers of other countries.

Information dissemination - the use of quad-media, newsletter, leaflets, fliers, info kits and other Information and Education Communication (IEC) materials to ensure extensive spread of message to all target beneficiaries.

Inorganic Fertilizer - any fertilizer product whose major nutrients nitrogen (N), phosphorus (P) and potassium (K) are supplied by inorganic/mineral or synthetic/chemical compounds. They maybe in solid or liquid form and contain considerable amount of at least one of the essential plant nutrients: Primary macronutrients, such as NPK, secondary macronutrients, such as calcium, magnesium and sulfur and micronutrients.

Institutional Linkages - require the execution of a Memorandum of Agreement/Understanding with government organizations, farmers' associations, private sector, academe and other concerned individuals or groups.

Label - is a legal document written on the container whether printed or in graphic forms of any fertilizer product which indicates accurate information about the product for which it is registered. This includes the grade, weight, source or origin and FPA registration number.

License - refers to the written authority granted by FPA to an individual or firm to manufacture/process, supply, distribute, market, sell, repack, store, import, and export fertilizer and/or plant growth promoting materials for commerce.

Liquid Fertilizer - fertilizer wherein the plant nutrients are in suspension, slurry or in solution form.

Mandatory Enforcement - applies to major imported or locally produced fertilizers which are traditionally used for agricultural purposes in the Philippines, namely: urea, ammonium sulphate, 16-20-0, 14-14-14, muriate of potash, ammonium chloride and di-ammonium phosphate. The list of fertilizers under this category shall be expanded whenever deemed necessary.

Mango Contractor - refers to person(s)/entities who enter into a contract with a mango grower to service his trees (from flower induction to harvesting) for a fee or on a sharing basis.

Manufacturer/Processor/Bulk-blender/Formulator - any person engaged in preparing, mixing or manufacturing fertilizer as business.

Microbial Inoculants - biologically active products containing optimum population of one or a combination of active strains of

bacteria, actinomycetes, algae, and fungi that are useful in different biological activities, such as N-fixation, decomposition of organic residues and solubilization of some essential nutrients such as phosphorus from the soil.

Misshipped Fertilizer - includes fertilizer shipments not intended for the country such as carrier that sunk or run around in the Philippine waters and ceded to Philippine private or government entities or an unauthorized fertilizer importation apprehended and seized by law enforcement agencies.

Mixed Compound Fertilizer - any combination or mixture of inorganic fertilizers where two or more of the materials contain the primary and/or secondary nutrients and micronutrients.

Mixed Fertilizer - a fertilizer containing any combination or mixtures of commercial fertilizers designed for use or claimed to have value in promoting plant growth.

National Single Window (NSW) – is a computerized internet –based system that allows parties involved in trade to lodge information and documents with a single entry point to fulfill all import, export and transit-related regulatory requirements.

New Grades - include locally formulated or imported fertilizers with no previous registration with FPA.

Official Sample - any sample of fertilizer taken by the FPA personnel in accordance with the provisions of the rules and regulations by FPA.

Organic-Based Foliar Fertilizer - liquid fertilizer whose solvent portion of the solution contains plant, animal and natural extract that may have carbohydrates, proteins, fatty acids, hormones and plant growth promoters as claimed by the manufacturer.

Organic Fertilizer - any product of plant or animal origin that has undergone decomposition through biological, chemical or any other process where the original materials are no longer recognizable, free from any pathogens, soil-like in texture, contains not less than 20% organic matter, oven-dry basis and can supply nutrients to plants.

Other nitrates - refer to calcium nitrate, calcium ammonium nitrate, sodium nitrate and other nitrates under Executive Order No. 522 (Importation of Ammonium nitrate in solid form was banned effective November 22, 2002).

Outlets - additional stores owned by a dealer or distributor.

Overlanded Fertilizer - any volume of fertilizer that is in excess of the certified volume declared by the importer/consignee or exporter/consignor.

Pathogen - a biological agent that produces disease, e.g. bacteria, fungi, protozoa and virus.

Person - includes individual, partnership, association, firm or corporation.

Plant Growth Regulator (Promoter) - any organic or inorganic compound, natural or synthetic, which in low concentration promotes or modifies the physiological response of the plants.

Plant Macronutrient - group of essential nutrients needed by most plants in large amounts. These include nitrogen, phosphorus, potassium, calcium, magnesium and sulfur or any combination of nutrients.

Plant Micronutrient - group of nutrients, which are essential for plant growth but are required in small amounts. These include readily available forms of iron, manganese, boron, molybdenum, copper, zinc, chlorine, and cobalt.

Potassium Nitrate - Potassium nitrate in pure, solid form, which is either technical (99% KNO_3) or agricultural (97% KNO_3) grade.

Primary Plant Nutrient - group of essential nutrients needed by most plants in large quantities. This includes readily available forms of nitrogen, phosphorus and/or potassium or any combination of these nutrients.

Provisional or Conditional Registration - type of registration granted when the technical requirement had been completed

including one season of efficacy test with significant results on a representative crop.

Plain Organic Fertilizer - an organic fertilizer material or any decomposed product of plant or animal origin which is not enriched with microbial inoculants, plant growth substances and/or chemical ingredients to increase its nutrient content with minimum total NPK of 5% and maximum of 7%.

Raw Materials - organic or inorganic materials used in the production of intermediate or finished fertilizer products. These include naturally-occurring and processed minerals such as guano, rock phosphate, potash, limestone, dolomite, peat, gypsum, and sulfur and intermediate materials such as superphosphate, phosphoric acid, sulfuric acid, ammonia, urea, ammonium sulfate and other deposits that are found in nature, mined and used in fertilizer production. Raw materials such as polymer, seaweeds and microorganisms are also included in this group.

Recovered Good Order Fertilizer - recovered fertilizer that meets the minimum standard requirements for good order fertilizer with not more than 2% nutrient loss and 1% moisture content.

Registered Product - product approved by FPA with a registration number assigned to it.

Registrant - any person who registers commercial fertilizer under the provisions of the rules and regulations on fertilizer.

Repackers - any fertilizer companies duly authorized to engage in retailing traditional, solid and inorganic fertilizers in smaller quantities except nitrates. Repacking of fertilizer in 5, 10 and 25 kg is at the distributor level.

Reviewers/Technical Consultants - persons designated by FPA through a Special Order to use his/her expertise on fertilizer matters.

Secondary Plant Nutrients - group of essential nutrients which are required by most plants in lesser amounts than that of primary nutrients. These include readily available forms of sulfur, calcium and magnesium.

Selective Enforcement - shall apply to all locally produced and imported fertilizers not covered by mandatory enforcement.

Soil Conditioner/Soil Amendment - organic or inorganic material, natural or synthetic, that is applied to the soil to modify certain soil physical properties, such as structure, moisture retaining capacity, shrinking and swelling capacity or resistance to crusting and to improve soil chemical or biological conditions. Examples are polyelectrolytes such as complex vinyl and acrylic, gypsum, diatomaceous earth, vermiculite, perlite and lime.

Solid, Inorganic Fertilizer - fertilizer that is in the form of powder, granules, pellets, prills or crystals, and shall be dry, free-flowing and free from lumps, visible impurities and extraneous matter. The moisture content is not more than 2.0% for both coated and uncoated.

Specialty Grades - include finished fertilizer products recommended to overcome a specific problem or supply the nutrient need of a specific ornamental, indoor plant, lawn grasses or for any purpose other than growing agricultural food, feed, fiber or other industrial crops.

Supplier - refers to any business entity which sells fertilizer products to importers.

Supplier for repackers - refers to the source (whether distributor, manufacturer or importer) of fertilizer which will be repacked in smaller quantities.

Target users/crops – refer to the location and specific demographics of the products to be sold and for what crops these are used for.

Ton - is a net weight of 1000 kilograms.

Trademark - is any distinctive word, name, symbol, emblem, sign or device or any combination thereof adopted and used by a manufacturer or merchant on his goods to identify or distinguish them from those manufactured, sold or dealt in by others. Trademarks with product logo expressed in words, special characters and pictures and distinguishing marks or art works

such as solid bands, dotted bands, colorful boarders, as an expression of identity of the company must be registered with the Intellectual Property Office.

Traditional Inorganic Fertilizers - include all inorganic fertilizers in solid or liquid form which are water soluble, fully registered for at least 10 years with FPA.

Traditional Organic Fertilizers - include all organic fertilizers which are fully registered or in the market for 7 years and tested in any of major crops such as corn, rice and sugarcane or tested in other 3 crops for 2 seasons each.

Warehouse - storehouse for fertilizer products.

Annex 2.1
NOT FOR SALE

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: *fpa_77@yahoo.com* Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

FPA Form PR-L

Tin No._____
Application No._____
Official Receipt No._____
Amount Paid_____
Date_____
Place

APPLICATION FOR LOCALLY MANUFACTURED/MINED FERTILIZER PRODUCT REGISTRATION

1. a. Brand/Trade Name: _____
   b. Type of Product: _____
   c. Certified/Guaranteed Composition of Product:
   _____
   _____

2. a. Name of Producer/Company: _____
   _____
   b. Business Address(es) & Tel. Nos.:
   1. Head Office: _____
   _____Tel Nos: _____
   2. Regional/Provincial Office: _____
   _____Tel Nos: _____
   3. Location of Plant: _____
   _____ Tel Nos: _____
   4. Location of Warehouse/s: _____
   _____

3. List of Materials/Raw Materials used in the production of product:
   _____
   _____
   _____
   _____

4. Actual Production Process (for original application): _____
   _____
   _____
   _____
   _____

5. Target Users/Crops: _____
   _____
   _____
   _____
   _____

6. FPA Accredited Researcher Handling Experiment/Field Test: _____
_____
_____
_____
_____

INFORMATION SHEET ON COST COMPONENTS AND PRICES
(For Locally Manufactured Products)

Name of Product(s): _____

Type of Fertilizer: _____

Unit of Measure (Please state if in metric ton, liter, etc.) _____

Direct Raw Materials _____

Direct Labor _____

Utilities (Power/Fuel) _____

Total Variable Manufacturing Cost _____

Fixed cost/plant overhead _____

Total Manufacturing Cost _____

Administrative/Selling Cost _____

Interest Charges _____

Others (specify) _____

Total Cost _____

Manufacturer's Mark-up _____

Ex-factory Price _____

I HEREBY CERTIFY that the foregoing data and information including those in the annexes hereof are true and correct to the best of my knowledge.

IN WITNESS WHEREOF, I have hereunto set my hands this _____day of _____, 20_____ at _____

_____
Name and Signature of Firm's President,
Manager or Authorized Representative

REPUBLIC OF THE PHILIPPINES
PROVINCE OF _____
MUNICIPALITY OF _____

SUBSCRIBED AND SWORN TO before me this ____ day of_____, 20 _____ at _____, Philippines. Affiant exhibited to me his/her Residence Certificate No. _____issued on _____, 20__ at _____Philippines.

_____
NOTARY PUBLIC
Until December 31, 20 _____

Doc. No. _____
Book No. _____
Page No. _____
Series of 20_____

Original should bear documentary stamp.

Annex 2.2
NOT FOR SALE

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/ 920-8238
E-mail Address: fpa_77@yahoo.com Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

FPA Form PR-I

Tin No._____
Application No._____
Official Receipt No._____
Amount Paid_____
Date_____
Place _____

APPLICATION FOR IMPORTED FERTILIZER PRODUCT REGISTRATION

1. a. Brand/Trade Name: _____

   b. Type of Product: _____

   c. Certified/Guaranteed Composition of Products:_____

   _____

2. a. Name of Company/Importer: _____

   b. Address: _____

   c. Repacker ( ) Formulator ( )
   Distributor ( ) Importer/Indentor ( )

   b. Certification of Mother Company:_____

3. Name of Supplier/Country of Origin/Supplier:_____

4. Size/Type of Packaging: _____

5. Target Users/Crops: _____

6. FPA Accredited Researcher Handling Experiment/Field test: _____

   _____

I HEREBY CERTIFY that the foregoing data and information including those in the annexes hereof are true and correct to the best of my knowledge.

IN WITNESS WHEREOF, I have hereunto set my hands this ___ day of _____, 20____at _____, Philippines.

_____
Name & Signature of Firm's President/
Manager or Authorized Representative

REPUBLIC OF THE PHILIPPINES
PROVINCE OF _____
MUNICIPALITY OF _____

SUBSCRIBED AND SWORN TO before me this _____day of _____, 20____ at _____, Philippines. Affiant exhibited to me his/her Residence Certificate No. _____issued on _____, 20_____ at _____, Philippines.

_____
NOTARY PUBLIC
Until December 31, 20 _____

Doc. No. _____
Book No. _____
Page No. _____
Series of 20_____

Original should bear documentary stamps.

INFORMATION SHEET ON COST COMPONENTS AND PRICES
(For Imported Products)

To be based on most recent importation

FPA Certification No.: _____

Name of Product _____
Type of Fertilizer _____
Unit of measure (Please state if in metric ton, liter, etc.) _____

C & F/CIF Price (in foreign currency) _____
Peso Value _____
Customs Duty _____
Taxes _____
3% ad valorem _____
Wharfage _____
Stevedoring & Arrastre _____
Other Landing Charges _____
Miscellaneous _____
_____

Landed Cost _____

Administrative/Selling Cost _____
Interest Charges _____
Others Specify _____

Total Cost _____

Importer's mark-up _____

Ex-warehouse Price _____

Note: Enumerate warehouse & corresponding ex-warehouse prices if more than one.

Annex 2.3

ACCEPTABLE WASTEWATER QUALITY/CHARACTERISTICS FOR RE-USE IN IRRIGATION AND FERTILIZATION

Wastewater quality/characteristic	Intended Irrigation Uses of Wastewater and Acceptable Level			
	Landscape Irrigation	**Food eaten raw and not commercially processed**	**Food crops commercially processed**	**Non-food crops**
A. For high productivity & environment protection				
Bicarbonates[1] (mg/L)	≤ 500	≤ 500	≤ 500	≤ 500
Biochemical Oxygen Demand (BOD) (mg/L)	≤ 150	≤ 150	≤ 150	≤ 150
Electrical Conductivity (µs/cm)	≤ 2000	≤ 1000	≤ 1000	≤ 2000
Free residual chlorine (mg/L)	≤ 1	≤ 1	< 1	< 1
pH	6.5 – 8.0	6.5 – 8.0	6.5 – 8.0	6.5 – 8.0
Sodium Adsorption Ratio (SAR)	< 18	< 18	< 18	< 18
Sodium (Na) (meq/L)	< 3	< 3	< 3	< 3
Total Nitrogen (TN)[1] (mg/L)	≤ 30	≤ 30	≤ 30	≤ 30
Total Phosphorous (TP)[1] (mg/L)	≤ 30	≤ 30	≤ 30	≤ 30
Total Suspended Solids (TSS) (mg/L)	≤ 140	≤ 140	≤ 140	≤ 140
B. For protection of animal and human health				
Ascaris (MPN/100 mL)	0	0	0	0
Fecal coliform (MPN/100 mL)	< 200	Not detectable[2]	< 200	< 200
Nematodes (MPN/100 mL)	0	0	0	0

[1] *None to moderate degree of restriction, for total N and total P if to be used as fertilizer, the declared composition shall be ± 2% of the declared % content of each nutrient.*

[2] *The total number of fecal coliform organisms shall not exceed 14 MPN/100 mL in any sample*

Limits of Trace Elements in Water for Use in Landscape/Crop Irrigation

Trace elements including heavy metals	**Maximum Limit** (mg/L)	Trace elements including heavy metals	**Maximum Limit** (mg/L)
Aluminum [1]	5.00	Lead	0.20
Arsenic	0.10	Lithium [3]	2.50
Beryllium	0.10	Manganese	0.20
Boron	0.75	Mercury	0.002
Cadmium [2]	0.01	Molybdenum	0.01
Chromium	0.10	Nickel	0.20
Cobalt	0.05	Selenium	0.02
Copper	0.20	Vanadium	0.10
Flouride	1.00	Zinc [4]	2.00
Iron	1.00		

[1] *High toxicity in acid soils, not a concern if soil pH is > 6.5*

[2] *Higher toxicity in acid soils*

[3] *Citrus: 0.075 mg/L*

[4] *1 mg/L recommended for sandy soil (pH<6)*

Annex 2.4
NOT FOR SALE

FPA EUP Form

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: fpa_77@yahoo.com Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

APPLICATION FOR EXPERIMENTAL USE PERMIT
FOR FERTILIZER EFFICACY TRIAL

TIN No. _____
Application No.: _____
Date Received: _____
Purpose __Initial Trial __2nd Season Trial___ Label Expansion _____
O/R No. (First Application) _____
Date Approved _____
EUP Certificate No. _____
Expiry Date _____
Extension Application _____
Extension Granted _____
O/R No. (Ext.) _____
Expiry Date (Ext.) _____
Remarks _____

1. NAME, ADDRESS AND TEL./MOBILE NO. OF APPLICANT :
_____
_____

2. PRODUCT NAME: _____

3. GUARANTEED ANALYSIS: _____

4. PRODUCT CLASSIFICATION:

_____NEW INORGANIC
_____ORGANIC
_____SPECIALTY/CONTROLLED
_____SOIL CONDITIONERS
_____ PLANT GROWTH PROMOTER
_____BIOFERTILIZERS (M.I./GMOs)

5. CROP(S): _____

6. TOTAL AREA COVERED BY TRIAL: _____

7. VOLUME/WEIGHT OF PRODUCT NEEDED _____

8. INCLUSIVE DATES FOR THE DURATION OF TRIAL _____

9. PROPOSED TREATMENT & METHOD OF APPLICATION _____
_____

10. LOCATION OF EXPERIMENTAL SITE _____
_____
(Sitio, Barangay, Town & Province)

11. NAME & ADDRESS OF RESEARCHER/ACCREDITATION NO./ RESEARCH INSTITUTE/AFFILIATION_____
_____

12. NAME OF APPLICANT/REPRESENTATIVE, DESIGNATION & SIGNATURE

_____

(Note: Please furnish a copy of the approved EUP to the FPA Regional/Provincial/Deputized Officer for his/her information and guidance)

REPUBLIC OF THE PHILIPPINES)
PROVINCE OF) S.S.
MUN. /CITY OF)

SUBSCRIBED AND SWORN to before me this ___day of _____,20 ____ at _____Philippines. Affiant exhibited to me his/her Residence Certificate No. _____ issued on _____, 20_____ at _____, Philippines**.**

_____

NOTARY PUBLIC

Until December 31, 20 _____

Doc. No. _____
Page No._____
Book No._____
Series of _____

Annex 2.5
NOT FOR SALE

CROP GROUPINGS AND REPRESENTATIVE CROPS
Classification and Examples of Commodities

GROUP 1. ROOT CROPS

A. Roots and Tubers

Root crops are starchy foods derived from the enlarged solid roots, tubers, corms or rhizomes, mostly subterranean, of various species of plants.

Commodity

Arrowroot	*Marantea arundinacea*
Beets, Sugar	*Beta vulgaris*
Carrot	*Daucus carota*
Cassava, Bitter or Sweet	*Manihot esculenta*
Ginger	*Zingiber officinale*
Parsley	*Petrosallium hortense*
Parsnip	*Pastinaca sativa*
Potato, white	*Solanum tuberosum*
Potato, sweet	*Ipomoea batatas*
Radish	*Raphanus sativus*
Taro	*Colocasia esculentium*
Tugui	*Dioscorea esculenta*
Turmeric	*Curcuma domestica*
Turnip (Singkamas)	*Brassica rapa*
Water chestnut (Apulid)	*Gleocharis dulcis*
Yam, True (Ubi)	*Dioscorea alata*
Yam bean	*Pachyrrhizus erosus*
Peanuts	*Arachis hypogea*

Representative Commodities

Carrot
Potato
Radish

B. Bulb Vegetables

Bulb vegetables are pungent flavorful foods derived from the fleshy scale bulbs, or growth buds of alliums of the lily family (Liliaceae). The entire bulb may be consumed following removal of the parchment-like skin.

Commodity	
Garlic	*Allium sativum*
Leek	*Allium porrum*
Onion, Green and Bulb	*Allium cepa*

GROUP 2. FRUITING AND LEAFY VEGETABLES

A. Leafy

Leafy vegetables are foods derived from the leaves of a wide variety of edible plants. The entire leaf may be consumed. Leafy vegetables of the brassica family are grouped separately.

Commodity	
Alugbati	*Basella alba*
Celery	*Apium graveolens*
Kangkong	*Ipomea aquatica*
Lettuce, Head and Leafy	*Lactuca sativa*
Bitter gourd/Ampalaya	*Momordica charantia*
Pepper leaves, Hot	*Capsicum frutescens*
Saluyot	*Corchorus capsularis oletorius*
Spinach	*Spinacia oleracea*
Squash	*Cucurbita maxima*
Malunggay	*Moringa oleifera*
Sitao	*Vigna sinensis*

Representative Commodites

Lettuce
Spinach

B. Fruiting Vegetables

Fruiting vegetables (except cucurbits) are derived from the immature or mature fruits of various plants, usually annual vines or bushes. The entire fruiting vegetables may be consumed.

Commodity	
Eggplant	*Solanum melongena*
Bitter Gourd/Ampalaya	*Momordica charantia*
Okra	*Hibiscus esculentum*
Pepper	*Capsicum annuum*
Tomato	*Lycopersicon esculentum*
Malunggay	*Moringa oleifera*
Squash	*Cucurbita maxima*

Representative Commodities

Eggplant
Tomato

C. Herbs and Spices

Herbs and spices are the flavorful or aromatic leaves, stems, roots or fruits of a variety of plants used to impart special flavors to foods and beverages.

Commodity

Lemon grass	*Cymboysogon cittratus*
Vanilla	*Vanilla planifolia*
Pandan	*Pandanus amaryllifolius*
Black pepper	*Piper nigrum*
Turmeric	*Curcuma longa*
Basil	*Ocimum basilicum*

Representative Commodities

Sweet basil
Black Pepper

D. Brassica (Cole) Leafy Vegetables

Leafy vegetables are foods derived from the leaves of a wide variety of edible plants. The entire leaf may be consumed. Leafy vegetables of the brassica family are grouped separately.

Commodity

Broccoli	*Brassica oleracea var. italica*
Brussel sprouts	*Brassica oleracea var. gemmifera*
Cabbage	*Brassica oleracea var. capitata*
Cauliflower	*Brassica oleracea var. botrytis*
Mustard	*Brassica juncea*
Mustard, Chinese (Pechay Baguio)	*Brassica rapa L. (pekinensis)*
Pechay	*Brassica chinensis*

Representative Commodities

Cabbage
Mustard, Chinese (Pechay Baguio)
Pechay

GROUP 3. LEGUME

A. Legume Vegetables (Succulent or Dried)

Legume vegetables are derived from the dried or succulent seeds and immature pods of leguminous plants commonly known as beans and peas. Dried forms are fully exposed to post harvest treatments. Succulent forms may be consumed as whole pods or shelled.

Commodity

Beans, Asparagus (winged bean)	*Psophocarpus tetragonolobus*
Beans, Common Habichuela	*Phaseolus vulgaris L.*
Beans, kidney	*Phaseolus vulgaris*
Beans, lablab	*Dolichos lablab*
Beans, lima	*Phaseolus lunatus*
Beans, mung	*Phaseolus aureus*
Beans, String (Sitao)	*Vigna unguiculata*
Cowpea	*Vigna sinensis*
Peas, Chick (Garbanzo)	*Pisum sativum var. vulgaris*
Peas, Garden (Chicharo)	*Cajanus cajan*
Soybeans	*Glycine max.*

Representative Commodities

Beans, Mung
Beans, String
Beans, Garden
Soybean

B. Foliage of Legume Vegetables

Foliage of legume vegetables are plant parts of any legume vegetable. Included in the group, Legume Vegetables, that will be used as animal feed.

Commodity

Bean, Mung, pods	*Phaseolus radiatus*
Soybean leaves	*Glycine max.*

Representative Commodities

Bean, Mung, pods
Soybean leaves

Cucurbit Vegetables

Cucurbit vegetables are derived from the immature or mature fruits of various plants, usually annual veins or bushes. Edible portion is protected by skin, peel or husk which is removed or discarded before consumption.

Commodity

Cantaloupe	*Cucumis melo var. reticulates*
Chayote	*Sechium edule*
Cucumber	*Cucumis sativa*
Gherkins	*Cucumis anguria*
Gourds (edible) / Patola	*Luffa cylindrica*
Kondol	*Benincasa hispida*
Melon, Musk	*Cucumis melo*
Pumpkin	*Cucurbita spp.*
Squash	*Cucurbita maxima*
Watermelon	*Citrullus vulgaris*

Representative Commodities

Cantaloupe
Cucumber
Squash

GROUP 4. MANGO AND OTHER FRUITS

A. Citrus Fruits

Citrus fruits are produced by trees of the true family and are characterized by aromatic peels, globular form and interior segments of juice filled vesicles. The fruit pulp may be consumed in succulent form and as a beverage. The entire fruit may be used for preserving.

Commodity

Calamondin (Calamansi)	*Citrus mitis*
Lemon	*Citrus lima*
Lime	*Citrus aurantifolia*
Mandarin	*Citrus reticulata*
Dalanghita	*Citrus nobilis*
Orange (Cahel)	*Citrus aurantium*
Pomelo	*Citrus decumata*
Grapefruit	*Citrus pacadisia*

Representative Commodities

Calamondin (Calamansi)
Pomelo

B. Pome Fruits

Pome fruits are produced by trees related to the genus pyrus of the rose family (Rosaceae). They are characterized by fleshy tissue surrounding a core of parchment-like carpels enclosing the seed. The entire fruit, except the core, may be consumed in the succulent form or after processing.

Commodity

Apple	*Malus sylvestris*
Chico	*Achras sapota*
Pear	*Pyrus communis*

C. Stone Fruits

Stone fruits are produced by trees related to the genus prunus of the rose family (*Rosaceae*). Characterized by a fleshy tissue surrounding a single hard-shelled seed. The entire fruit, except the seed, may be consumed in a succulent or processed form.

Commodity

Cherry	*Prunus spp.*
Prune	*Prunus domestica*
Peaches	*Prunus persica*

Whole commodity after removal of stems and stones. The residue is calculated and expressed on the whole commodity without stem.

D. Small Fruits and Berries

Small fruits and berries are derived from a variety of plants having fruit characterized by a high surface-weight ratio. The entire fruit, often including the seed may be consumed in a succulent, dried and processed form.

Commodity

Bignay	*Antidesma bunius*
Grapes	*Vitis vinifera*
Mulberry	*Morus alba*
Strawberries	*Fragaria spp.*
Blackberries	*Rubas spp.*
Blueberries	*Vaccinium spp.*

Representative Commodities

Bignay
Strawberry
Grapes

E. Tree Nuts Group

Tree nuts are the seed of a variety of trees and shrubs which are characterized by a hard inedible shell enclosing an oily seed. The edible portion of the nut is consumed in a succulent, dried, and processed form.

Commodity

Cashew nuts	*Anarcadium occidentale*
Chestnuts	*Castanea spp.*
Pili nuts	*Canarium ovatum*

Representative Commodities

Cashew Nut
Pili Nut

PRODUCTS NOT CLASSIFIED FOR GROUP TOLERANCES

Commodity

Avocado	*Persea americana*
Banana	*Musa sapientum*
Carambola	*Averrhoa carambola*
Chesa	*Lucuma nervosa*
Coconut	*Cocos nucifera*
Durian	*Durio zibethinus*
Guava	*Psidium guajava*
Jackfruit	*Artocarpus integra*
Kamias	*Averrhoa bilimbi*
Kaong	*Arrenga pinnata*
Lanzones	*Lansium domesticum*
Litchi	*Litchi chinensis*
Mabolo	*Syzygium samarangense*
Mango	*Mangifera indica*
Mangosteen	*Garcinia mangostana*
Papaya	*Carica papaya*
Passion fruit	*Passiflora edulis*
Pineapple	*Annanas comosus*
Rambutan	*Nephelium lappaceum*

Pomegranate	*Punica granatum*
Rimas	*Artocarpus communis*
Santol	*Sandoricum koetjape*
Soursop (guyabano)	*Annanas muricata*
Star apple	*Chiysophyllum caimito*
Sugar apple (atis)	*Annanas squamosa*
Sugarcane	*Saccharum officenarum*
Tamarind	*Tamarind indica*

GROUP 5. CORN AND OTHER UPLAND CEREALS

Cereals and grains are derived from the clusters of starchy seed produced by a variety of plants, primarily of the grass family (Graminae). Husks are removed before consumption. Buckwheat is included in this group because of similarities of growth and use.

Commodity

Corn	*Zea mays*
Sorghum	*Sorghum spp.*
Triticum	*Triticum-secale hybrids*
Wheat	*Triticum spp.*
Pearl Millet	*Pennisetum americanum*
Barley	*Horcerum vulgare*

Representative Commodities

Corn, Sorghum and wheat

GROUP 6. RICE (*Oryza sativa*)

GROUP 7. FORAGE FODDER AND STRAW OR CEREAL GRAINS

A. Forage, fodder and straw of all commodities included in the group of cereal grains

Commodity

Corn Forage, fodder and straw	*Zea mays*
Rice Forage, fodder and straw	*Oryza sativa*
Sorghum fodder	*Sorghum spp.*

Representative Commodities

Corn
Rice

B. Grass Forage, Fodder and Hay

Any grass, Graminae family, (either green or cured) except sugarcane and those included in the cereal grains group that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage.

Commodity

African star grass	*Cynodon plectostachyus*
Bagokbok	*Themeda triandra*
Cogon	*Imperata cylindrica*
Guinea grass	*Panicum maximum*
Napier grass	*Panisetum purpureum*
Para grass	*Brachiaria mutica*

Representative commodities

Napier grass and cogon

C. Non-Grass Animal Feeds

(Forage, Fodder, Straw and Hay)

Commodity

Ipil-Ipil	*Leucaena glauca leucocephala*
Kudzu	*Ueraria lobata*
Stylo	*Stylozanthes guyanensis*

Representative commodities

Ipil-Ipil, Stylo

GROUP 8. SUGARCANE

GROUP 9. TURF

GROUP 10. ORNAMENTALS

A. Cutflowers

Commodity

Chrysanthemum	*Chrysanthemum japoonicola*
Anthurium	*Anthurium andraceanum*
Heliconia	*Heliconia zingiberales, Heliconia carabasa, Heliconia pendula, Heliconia columsiana*

Baby Aster	*Chaetopappa ericoides*
Gladiolus	*Gladiolus edulis*
Roses	*Rosa galica, Rosa gigantea, Rosa chinensis, Rosa damacena, Rosa moschata*
Orchids	*Cattleya, Cymbidium, Vanda, Dendrobium, Miltonia, Phalaenopsis, Odontoglossum, Pahphiodilum*

Representative crop

Orchid

B. Foliage

Commodity

Heliconia	*Heliconia stricta, Heliconia psittacorum, Heliconia tropic fleur, Heliconia orthotricha, Heliconia wagneriana, Heliconia indica spectabilis, Heliconia rostrata*
Maidenhair fern	*Adiantum pendatum, Adiantum tenerum*
Asparagus fern	*Asparagus densiflorus*
Lady Palm	*Chamaedorea graminifolia, Chamaedorea cataractum, Chamaedorea elegans*
Ti plant, Cordyline	*Cordyline fruticosa*
Beach tea, Gulf croton	*Croton punctatus*
Pothos, Ceylon creeper	*Epipremnum aureum*
Fern (Staghorn, Woodwardia)	
Bamboo	*Bambusa vulgaris, Bambusa multiplex, Bambusa veitchii, Bambusa tootsik albostriata*

Representative commodities

Bamboo, Lady palm,
Maidenhair fern

C. Indoor plants

Commodity

Bougainvillea	*Bougainvillea spectabilis wild*
Chrysanthemum	*Chrysanthemum indicum*

Poinsettia	*Euphorbia pulcherrima*
Fig tree,Ficus tree, Balete, Weeping laurel, Benjamin tree	*Ficus Benjamina*
Aglaonema, Chinese evergreen	*Aglaonema spp.*
Asparagus fern	*Asparagus densiflorus*
Lucky bamboo, Ribbon plant	*Dracaena sanderiana*
Philodendron	*Philodendron selloum*
Rhapis palm, Lady finger	*Raphis excelsa*

Representative Commodities

Aglaonema and Poinsettia

GROUP 11. PLANTATION CROPS

Banana	*Musa paradisiacal*
Coconut	*Cocos rucifera*
Coffee	*Coffea racemosa*
Cacao	*Theobroma cacao*
Pineapple	*Ananas comosus*

GROUP 12. INDUSTRIAL CROPS

Rubber trees	*Hevea brasiliensis*
Palm oil trees	*Elaeis guineensis*
Cassava	*Manihot esculenta*

GROUP 13. TOBACCO

Tobacco	*Nicotiana tobacuni*

GROUP 14. OTHERS

Annex 2.6

GOOD AGRICULTURAL PRACTICES (GAP)

What is GAP?

GAP is the basic environmental, human health, and sanitary operational practices that are necessary for the production of safe, wholesome fruits and vegetables.

I. Introduction

Fresh fruits and vegetables may become contaminated with pathogens at any point in the farm-to-fork chain. And because production, harvest and distribution in commercial agriculture are very large and complex operations, it is impossible to know exactly how and at what point these products became contaminated. Once contaminated, the removal or killing pathogens in fresh fruits and vegetables is very difficult especially since cooking is not appropriate for produce bound for fresh markets. Thus, prevention of contamination is imperative to assure a safe product.

The use of Good Agricultural Practices (GAP) during growing, harvesting, sorting, packaging, and storage operations for fresh fruits and vegetables is key in preventing pathogen contamination. Key areas of concern when implementing a GAP program are prior land use, adjacent land use, water quality, soil fertility management, wildlife, pest and vermin control, worker hygiene and sanitary facilities, harvesting and cooling practices.

The following principles provide a look at various operations and GAP's associated with each. The intent of this write up is not to cover every detail of each operation in the production and handling of fresh produce but rather to educate on the importance of the topic and to use pertinent examples to illustrate some concerns. Because of the diversity of agricultural production practices and commodities, procedures recommended to minimize microbial contamination will be most effective when these general concept are adopted to specific operations.

II. Guiding Principles of Food Safety

a. What are the Guiding Principles of Food Safety for Fresh Produce

- Once contaminated, removing or killing pathogens on produce is very difficult.
- Prevention of microbial contamination in all steps from production to distribution by practicing goods hygiene and sanitation is strongly favored over chemical treatment to eliminate contamination that may have occurred.
- Documentation of implementation of prevention programs and food safety awareness training for workers at all levels of the agricultural and packing environments are key signatures of a credible food safety program.

b. Guiding Principles for Crop Protection and Water

The quality of water that comes in contact with fresh produce may directly determine the potential for persistent pathogen contamination. Therefore:

- Become familiar with the routes and handling of surface water sources, seasonal influences on quality and any microbial monitoring programs of the supplier
- Identify potential sources of contamination that affect your water, especially those that are within your ability to control in a manner that will protect its quality
- Ensure that wells are designed and maintained in a manner that prevent surface run-off or soil infiltration from contaminating the water supply
- Water used for all foliar application should be from a pathogen-free source
- Until more research data are available, it is strongly recommended that water used in any foliar applications within two weeks before harvest be from a potable water source.

Table. Summary of control measures used to prevent or lessen the crop damage caused by pests.

Method	Description
Biological Control	Uses of biopesticides or living organism for pest control. Biopesticides fall into three (3) major classes: a. Microbial pesticides contain a microorganism that generally attacks a specific pest. b. Plant pesticides are substances that plants produce from genetic material that has been added to the plant. c. Biochemical pesticides are naturally occurring substances that control pests by non-toxic mechanism. Some plant growth regulators are naturally occurring bio-pesticides. Biological control also includes the release of parasitic and predaceous insects to control insect pest or weed species.
Plant Resistance	Crop plants are bred to produce varieties that resist insect and other pests. Crop plants are also genetically altered to allow them to withstand herbicides so that only weed species are killed when treated with chemical pesticides.
Cultural Methods	Methods include crop rotation, soil tillage, use of trap crops, change in planting or harvesting time, intercropping with other crops or with varieties which repel pests.
Mechanical and Physical Methods	Techniques such as collecting pests with traps, suction devices or by hand, using fire, heat, cold, sound, barriers or screens.
Chemical Methods [a]	Conventional pesticides as synthetic chemicals which are intended to prevent, destroy, repel or mitigate any pest, or intended for use as a plant regulator, defoliant or desiccant.
Integrated Pest Management (IPM)	IPM is a pest management approach that uses all available pest control methods, including but not limited to the judicious use of pesticides, to optimize a crop's ability to resist the pest with the least hazard to man and the environment.

[a] Pesticides should be used only on crops for which they are registered. The pesticide label is the ultimate source of information for determining the proper application rates for a specific pesticide. A high level of pesticide residue in crops is harmful to consumers. A legal limit known as the Maximum Residue Level (MRL) is developed for each pesticide to provide reasonable assurance that no adverse effect to the consumer will result. Countries relying on food export profits should monitor and comply with MRL levels in order to maintain their credibility as responsible exporters.

c. Guiding Principles for Manure and Biosolids

Properly composted manures or biosolids are not a source of microbial pathogens on fresh produce.

- Be informed about proper compost management for pathogens reduction and document the method of pathogen elimination of applied manure.
- Document or obtain documentation about the specific compost management for each lot.
- Maximize the time between application of manure to production and harvest areas.
- If the use of multi-season drip irrigation is practised, spreading of manure without incorporation into the soil requires careful attention to ensure that pathogen reduction practices have been met and documented.

d. Guiding Principles for Minimizing Animal Fecal Contamination

It is not possible, or may not be permissible, to eliminate all animal influences from production fields. However, steps to minimize their presence or activities should be determined.

- Domestic animal should be excluded from fields during the growing and harvesting season.
- Evaluate the need for bare soil buffers to adjacent land that may encourage high population of reptiles, amphibians, rodents, birds or other potential sources of contamination.
- Minimize the presence of vector attractants (such as cull piles) within the production field

e. Guiding Principles for Worker Health and Hygiene

There is no substitute for awareness, training and constant reinforcement on the importance of personal hygiene and sanitation which are critical to sustainable business and employment.

- Follow requirements of sanitary facilities

- Establish a training program including proper hand washing techniques and the importance of using toilet facilities.
- Establish and communicate a clear policy that will allow worker, who are reported to have symptoms of illness or diarrhea, to be reassigned to activities that do not involve food or food surface contact. In the absence of such a policy, it is probable that instances of an illness will not be reported.
- Carefully inspect areas frequented by unsupervised workers.
- Provide bandages or other protective covering to workers with cuts or lesions on parts of the body that may make contact with fresh produce.
- If gloves are used, provide instruction on proper use to prevent pathogen transfer to fresh produce
- Use caution when servicing portable toilets to prevent leakage into a field.
- Provide physical diversion and containment in the event of waste spillage. Have a plan for production isolation and destruction in the event of spill.

f. Guiding Principles for Field and Harvest Sanitation

All surfaces and implements that touch fresh produce must be treated as food contact surface.

- Clean all food contact surfaces and harvest containers prior to use.
- Ensure that harvest contractors and crew are aware of microbial food safety risk reduction principles and adhere to establish safe food practices.
- Develop and document a system of cleaning and sanitizing food contact surfaces.
- Minimize the opportunity for vector to contaminate packaging surfaces and materials.
- Minimize the access or attraction of vectors to harvest equipment kept in the field. Ensure that there are no damaged fruit left on belts or grading tables.

g. Guiding Principles for Packing Facilities

Well-designed and operated centralized packaging facilities and packing systems have the potential to contribute to the reduction of pathogen contamination. Lapses in facility or system management have the potential to amplify localized contamination and broadly re-distribute pathogens or create opportunities for pathogen contamination within the facility.

- Design and maintain packaging surface and equipment to minimize injury to produce and to maximize accessibility by cleaning or sanitizing personnel.
- Establish routine cleaning as sanitizing programs for all food contact surfaces.
- Remove as much dirt from harvest containers, trailers or gondolas between harvest uses. This should be done outside the packing facility and isolated from any water source used for postharvest handling.
- Clean pallets or containers before use.
- Establish and maintain a pest control program.
- Prevent birds or other vectors from contaminating packaging equipment surfaces, packaging areas and storage areas.
- Store unformed or empty containers off the floor or bare soil surface in places protected from contamination.

h. Guiding Principles for Postharvest Water During Packaging

The quality of postharvest water that contacts fresh produce during cleaning, washing, grading, cooling, and application of surface treatment is widely recognized as an essential control point for fresh produce.

- Follow program typical of Good Manufacturing Practices (GMP) to ensure that all water is of adequate quality throughout all packaging operation from start-up to the last packed unit.
- Anti-microbial chemicals help minimize the potential for microbial contamination from spreading. Levels

of anti-microbial chemicals must be routinely monitored and recorded to ensure they are maintained at appropriate levels.

- Special attention to water quality is required for dump tank systems and re-circulated water.
- Keep air-cooling and chilling equipment clean and sanitary.
- Transport, store and use ice under sanitary conditions.

i. Guiding Principles for Transportation

Consequences of cross-contamination during transportation and distribution will find a direct back to handler and grower.

- Inspect transport vehicles for cleanliness, odors, obvious dirt and debris before loading. Insist on trailer or container clean-out before loading, if needed.
- Ensure that transporters, distributors and retailers maintain the integrity of the positive lot identification and trace-back system that are being used.

j. Guiding Principles for Storage and Distribution

Well-designed and operated wholesale distribution, land consolidation, and cross-docking facilities have the potential to maintain the integrity of a pathogen-free product. Lapses in facility sanitation or system management have the potential to amplify localized contamination, promote internalization of pathogens into products and broadly redistribute pathogens.

Mixed storage and mixed load distribution have the potential to transfer contamination from one lot or production to a previously non-contaminated produce item, especially where pallet-stacking, ice infection, or top-icing is involved.

- Be aware of the potential for cross-contamination.
- Separate dry and wet product and place water-repellant shipping barriers between mixed loads.

III. Record for Traceability:

The date of the supply of the produce and the destination where the consignment was sent must be recorded. This information can be recorded in a diary or other record form.

An example of information to record is as follows: “30 baskets of tomatoes from Block B were picked and packed on the 20th April 2006 and sold to trader X in Ho Chi Minh City”.

- Each separate production site is identified by a name or code. The name or code is posted on location and recorded on a property map. The site name or code is recorded on all documents that refer to the site.
- Packed containers are clearly marked with an identification to enable traceability of the produce to the farm or site where the produce is grown.
- A record is kept on the date of supply and destination for each consignment of produce
- When produce is identified as contaminated or potentially contaminated, the produce is isolated and distribution is prevented. If sold, the buyer is immediately notified.
- The cause of any contamination is investigated and corrective actions are taken to prevent re-occurrence. A record is kept of the incident and actions taken.

SAMPLE LABEL FOR BOTTLES AND CARTONS

KEEP OUT OF REACH OF CHILDREN

TRADE NAME
DESCRIPTIVE STATEMENT

ART WORK

Registered by the Fertilizer and Pesticide Authority
Pursuant to P.D. 1144
FPA Registration No. __Lot/BatchNo. ___
Net Content __Date of Expiration _____

Storage & Disposal

Compatibility

Prohibition

Warranty

DIRECTION FOR USE

Crops	Time of application	Interval	Rate

WARNING/PRECAUTIONS:

Product Information

Guaranteed Analysis:

Nitrogen (N)%:__
Phosphorous (P_2O_5)%:__
Potassium (K_2O)%:__

Trace and secondary nutrients, if any:

Product Description

NAME OF MANUFACTURER/ DISTRIBUTOR & ADDRESS

¼" Violet Purple

4-Panel Label

Annex 2.7b.

SAMPLE LABEL FOR BAGS AND SACHETS – a) Inorganic Fertilizers

Front

BRAND NAME
(with logo)

Guaranteed Analysis:

Nitrogen (N)%: _____
Phosphorous (P_2O_5) %:_
Potassium (K_2O)%: ___

Trace and secondary nutrients
(ppm for each nutrient, if any)

Country of Origin : _____
(optional for locally manufactured products)

Name and Address of Local and/or Foreign Manufacturer/Importer/ Distributor

FPA Product Registration No._____

Back

BRAND NAME
(with logo optional)

DIRECTION FOR USE

Batch number and code, months and year of manufacture or importation (if applicable)

Expiry Date:

Net Content:___ kg

Annex 2.7c.

SAMPLE LABEL FOR BAGS AND SACHETS – b) Organic Fertilizers / Soil Conditioner / Biofertilizers

Front

BRAND NAME
(with logo)

Guaranteed Analysis:

Total NPK(%): _____

Moisture Content(%): __
Organic Matter(%): ___
C:N Ratio _____

FPA Product Registration No.__

Contents:_____
(net mass, in kg)

Back

Manufacturer and / or Importer

Address of Manufacturer and / or Importer

Batch number and code, months and year of manufacture or importation (if applicable)

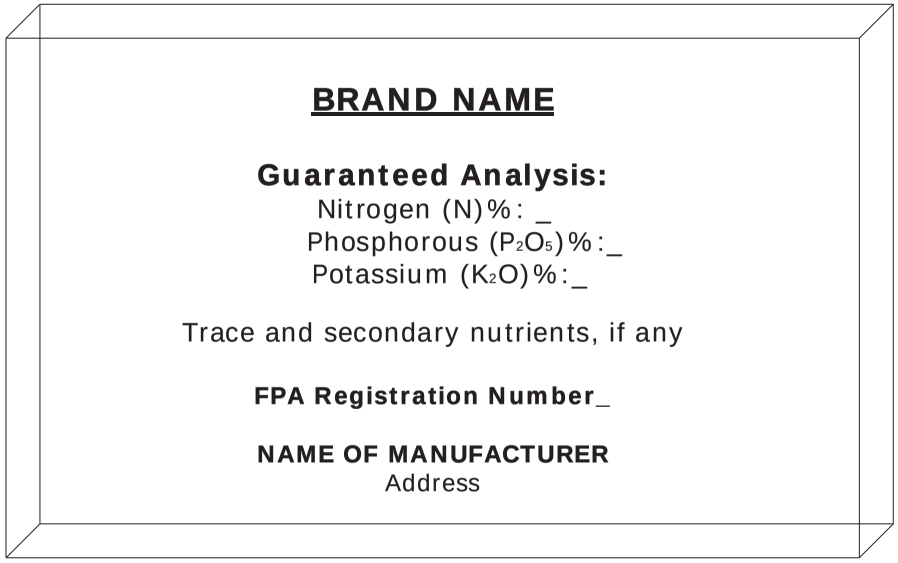
Expiry Date:
(if Biofertilizers)

Annex 2.7d

SAMPLE LABEL FOR TANKS AND CONTAINERS – a) For Tanks

Size of label	Volume
5 x 10 cm	= 100-500 mL
15 x 25 cm	= 1-5 gallons
20 x 30 cm	= 5 gallons or more

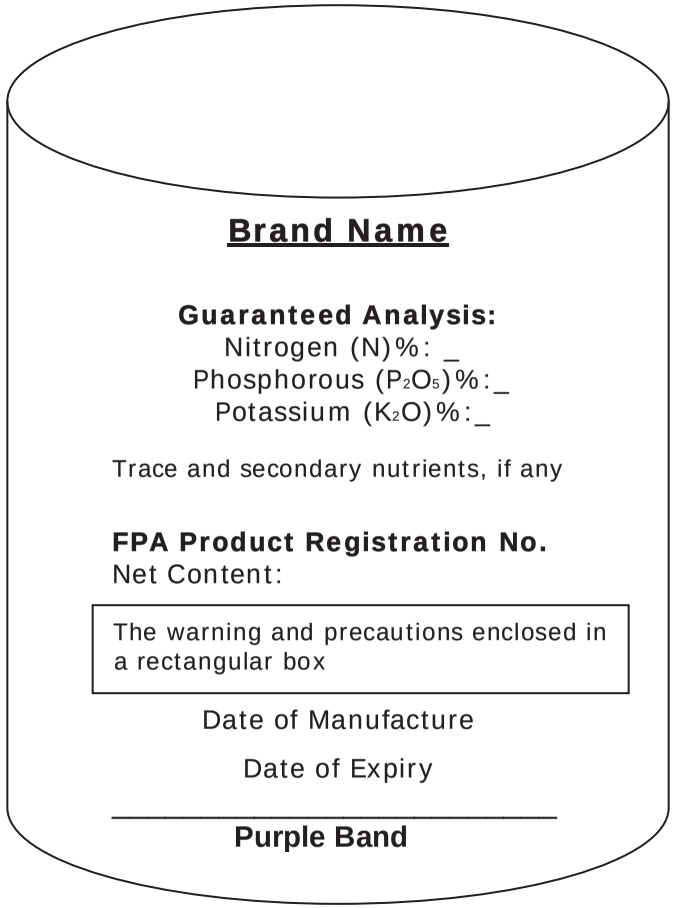
white background →



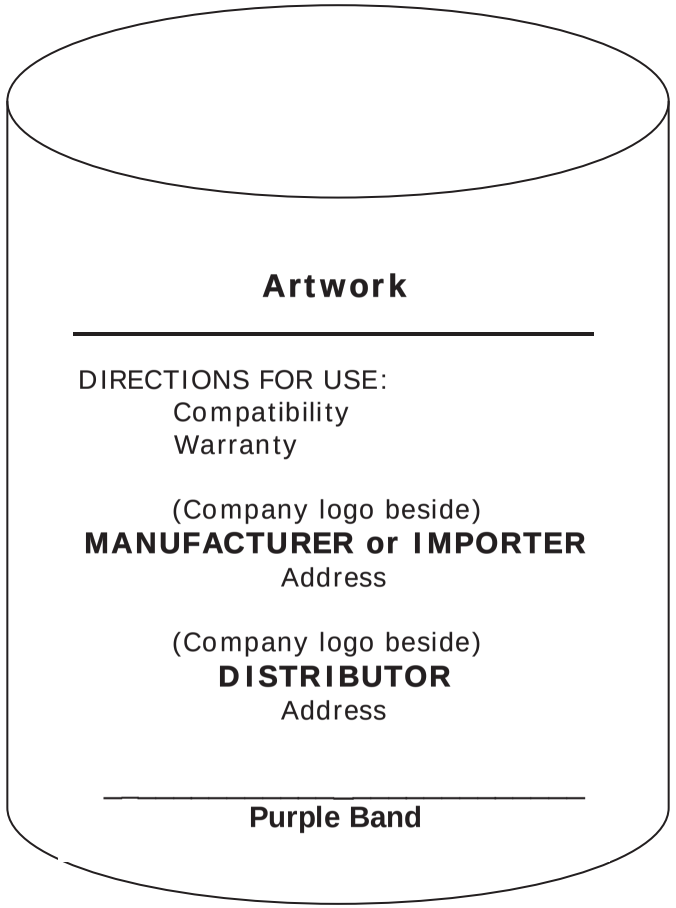
Annex 2.7e

SAMPLE LABEL FOR TANKS AND CONTAINERS – b)For Containers

Front



Back



Annex 2.8

Globally Harmonized System (GHS)

I. Background

In June 2002, APEC ministers endorsed the first chemical dialogue recommendation of GHS and encouraged officials to work in the direction including thorough capacity building. In October 2002, APEC members were encouraged to work towards implementing GHS on hazard classification and labeling of chemical safety data sheets by 2006, including thorough capacity building.

Developments of GHS

There are many different systems providing information about chemicals world-wide both in terms of scope of coverage and how hazard information is to be conveyed. This resulted to uneven protection from one country to another and high cost of labeling due to different national systems. In 1992, the UNCED (United Nations Conference of Environment and Development) adopted an international mandate to develop a globally harmonized hazard classification and compatible labeling system, including material safety data sheets and easily understandable symbols. The development of the GHS has been a joint effort of the Organization for Economic Cooperative and Development (OECD), ILO, UN Committee of Experts for the Transport of Dangerous Goods (UNCETDG) and numerous national experts from the Americas, Europe, Asia and Australia.

What is GHS?

Globally Harmonized System (GHS) is a common and consistent approach to define and classify hazards from chemicals and to communicate such on labels and safety data sheets. It provides the basic principles for the establishment of chemical safety programs.

II. GHS Rationale

GHS is not a total novel concept since the harmonized classification and labeling were already in place for physical hazards and acute toxicity in the transport sector. But harmonization has not been achieved in the workplace or consumer sectors. Also, transport

requirements are not often harmonized with other sectors in the country.

a. Application of the GHS

The GHS covers all hazardous chemical substances, dilute solutions and mixtures. It varies by type of product or stage of the life cycle. Pharmaceuticals, food additives, cosmetics and pesticide residues in food will not be covered at the point of intentional intake but will be extended to workers who may be exposed in the workplace or during transport.

b. Benefits of Adopting GHS

Adoption of GHS enhances protection of human life and environment worldwide. International trade involving chemicals, where the hazards have been assessed and identified properly on an international basis will be facilitated easily. There will be no duplication of testing and evaluation of chemicals to determine their hazardous effects. Countries need not develop and maintain a system of their own since GHS is internationally sustained. GHS also provides the informational framework for the sound management of chemicals of every country.

III. Principles of Harmonization

The level of protection should not be reduced as a result of harmonization. The scope includes both hazard classification criteria and hazard communication (Safety Data Sheets (SDS) / and/or labels.) Changes in all existing systems will be required to achieve, single globally harmonized system. The GHS does not include requirements for testing health and environmental hazards. Test data generated for the classification of chemicals under the existing systems should be accepted when classifying. Target audiences include consumers, workers, transport workers and emergency responders. With regards to chemical hazard communication, Confidential Business Information (CBI) should be protected.

IV. Scope Limitation

The mandate for development of GHS does not include establishment of uniform test methods or promotion of further testing to address adverse health outcomes. It is developed based on existing data for physical hazard under UNCETDG. Criteria are linked to specific test methods for hazard classes such as flammability and explosivity.

The hazard communication component of GHS may vary by product category or stage in the life cycle and intentional human intake or ingestion as well as intentional application to animals. Products such as human or veterinary pharmaceuticals are not subject to GHS hazard labeling. Labeling is also not required for food that may have trace amounts of food additives or pesticides.

GHS is not intended to harmonize risk assessment procedures or risk management decisions. Chemical inventory requirement in various countries are not related to GHS.

a. Building Block Approach

Harmonized elements of GHS are a collection of building blocks and, must therefore have consistency.

b. The GHS Elements

Hazard Classification Criteria are Health and Environmental and Physical while Hazard Communication is by Labels / Safety Data Sheets.

c. Classification

Foundation and starting point for hazard communication and hazard classification are used to indicate that only the intrinsic hazardous properties of substances and mixtures are considered.

GHS classification involves 3 steps:

1. Identification of relevant data regarding the hazards.

2. Subsequent review of data to ascertain the hazards associated with the substance or mixture.
3. A decision on whether the substance will be classified as hazardous and its degree of hazard based on comparison of the data with agreed hazard classification criteria.

c.1 Health Hazard Classes

- acute toxicity
- skin corrosion/irritation
- serious eye damage/eye irritation
- sensitization
- germ cell mutagenicity
- reproductive toxicity
- carcinogenicity
- specific target organ system toxicity (TOST)

c.2 Environmental Hazard Classes

- Hazardous to the aquatic environment
- Acute aquatic toxicity
- Chronic aquatic toxicity

IV. Definitions

Substances – chemical elements and their compounds in the natural state or obtained by any production process.

Mixture – mixtures or solutions composed of two or more substances in which they do not react.

Alloy – a metallic material, homogeneous on a macroscopic scale, consisting of two or more elements so combined that they cannot be readily separated by mechanical means. Alloys are considered to be mixtures for the purpose of classification under the GHS.

Hazard under discussion for harmonized criteria are the following:

- Respiratory irritation
- Water activated toxicity/corrosion
- Narcotics effects
- Aspiration hazard

Possible topics for the future discussion are the following:

- Immunotoxicity
- Hazardous to the terrestrial environment
- Hazardous to the ozone layer

Annex 2.9

STEPS IN THE PROCESSING OF VAT EXEMPTION CERTIFICATION FOR IMPORTATION OF FERTILIZER

1. Ensure that the product being applied for VAT exemption is duly registered with the FPA. This can be verified from the List of Registered Fertilizer Products.

2. The importer must be a licensed fertilizer importer. This can also be a verified from the List of Fertilizer Handlers.

3. A letter of request for VAT Exemption Certification must be submitted to the FPA Central Office with the following shipping documents as attachments:

    a. Bill of Lading
    b. Commercial Invoice
    c. Packing List
    d. Laboratory analysis of sample taken from the country of origin prior to its shipment to the Philippines. This must be conducted by SGS or any independent laboratory from the country of origin.

For potassium nitrate and other explosive ingredients, the following additional documents must also be submitted:

    a. License from PNP-FED.
    b. Permit to import from the PNP-FED.
    c. List of target buyers.
    d. Disposition report of the previous shipment stating the names of the customers and the quantity sold.
    e. Location of the plantation, area, number of fruit bearing trees and a copy of contract of farm (if contracted). Also, scheme of fertilization of trees after harvest should be outlined and disclosed.

4. If all the above-listed documents have been submitted, then the VAT Exemption Certification will be prepared.

5. Per Administrative Order No. 13 (as signed by Sec. Edgardo J. Angara), effective May 16, 2000, the processing

fee for VAT Exemption Certification is six hundred pesos (P600.00).

6. Each Certification should be entered in the logbook with a corresponding number.

7. For ammonium sulfate and potassium sulfate, trans-shipment permit is needed. This will be submitted to the Regional FPA and PNP Officers concerned.

Annex 2.10

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: *fpa_77@yahoo.com* Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

PLANT INSPECTION REPORT

NO. _____

DATE OF INSPECTION _____DATE OF LAST INSPECTION _____
NAME OF COMPANY _____
ADDRESS _____
INFORMANT _____ POSITION _____

I. ORGANIZATIONAL STRUCTURE

DEPARTMENT	NO. OF PERSONNEL			
	MALE		FEMALE	
	PERMANENT	PER DAY	PERMANENT	PER DAY
ADMINISTRATIVE				
MARKETING/DISTRIBUTION				
PRODUCTION				
MAINTENANCE				
OTHERS				

II. PRODUCT SPECIFICATIONS

SUPPLY/DEMAND	PRODUCT NAME	PRODUCT NAME	PRODUCT NAME	PRODUCT NAME
PROD'N/MONTH				
INVENTORY/MONTH				
SELLING PRICE				

III. RAW MATERIALS

TYPE OF MATERIAL	QUANTITY NEEDED/ PRODUCTION	TYPE OF MATERIAL	QUANTITY NEEDED/ PRODUCTION
1. ANIMAL MANURE		3. AGRO-INDUSTRIAL WASTE	
- COW DUNG		- RICE HULL	
- PIG MANURE		- SAW DUST	
- CHICKEN MANURE		- COCONUT HULL	
- CARABAO MANURE		- CHUFFS (EX. PINEAPPLE)	
2. AGRICULTURAL		4. MUNICIPAL WASTE	
- RICE STRAW		- HOUSEHOLD GARBAGE	
- SUGARCANE		- NIGHT SOIL	

- CORN COBS		5. OTHERS	
- OTHERS		- PEAT	
		- WATER HYACINTHS	
		6. DECOMPOSER/ACTIVATOR	

PROCEDURE: NO. OF DAYS OF FERMENTATION/DECOMPOSITION_____

FREQUENCY OF TURNING PILE UP TO FINAL STAGE OF PROCESSING _____

IV. OVERVIEW OF THE PRODUCTION PROCESS

V. WASTE DISPOSAL METHODS

_____
_____
_____
_____
_____

VI. PHYSICAL FACILITIES

1. PLANT: OWNED _____ RENTED _____

a. LOCATION _____
b. DISTANCE FROM POPULATION CENTER _____
c. PROXIMITY TO AQUATIC ECOSYSTEM _____
d. DATE OF CONSTRUCTION_____
e. KIND OF BUILDING MATERIALS:
- ROOF_____
- WALLS_____
- FLOOR_____

f. SIZE _____

2. WAREHOUSE: OWNED _____ RENTED _____

a. LOCATION_____

b. DATE OF CONSTRUCTION_____

c. KIND OF BUILDING MATERIALS

- ROOF_____
- WALLS_____
- FLOOR _____

d. SIZE_____

e. CURRENT STOCK _____

f. PRODUCTION CAPACITY_____

VII. EQUIPMENT/MACHINERIES/TRANSPORT FACILITIES

KIND	QUANTITY	MODEL	PRESENT CONDITION

VIII. GENERAL PREMISES AND WORKING CONDITIONS

BUILDING	
- VENTILATION	
- ILLUMINATION	
- STORAGE AREA	
- FIRE/EMERGENCY EXITS	
- PRESENCE OF DANGER SIGNS/LABELS	
- WATER SOURCE/HYDRANTS	
EATING FACILITIES	
BATHING AREA	
HOUSEKEEPING	

IX. RECOMMENDATIONS:

_____

_____

_____

_____

_____

X. OCCUPATIONAL HAZARDS (INDICATE CONTROL MEASURES BEING USED)

a. PHYSICAL

_____

b. CHEMICAL

_____

c. BIOLOGICAL

_____

d. ERGONOMIC

XI. PERSONAL PROTECTIVE EQUIPMENT

FACE MASK		SAFETY GOGGLES		DUST MASK		EAR PLUGS	
WORK CLOTHES		SAFETY SHOES		SAFETY HELMET		GLOVES	

COMMENTS:

_____
_____
_____
_____

XII. HEALTH PROGRAM

ATTENDING PHYSICIAN _____
SCHEDULE _____
CLINIC _____

	YES	NO
PHYSICAL EXAMINATION		
- PRE-EMPLOYMENT		
- ANNUAL		
LABORATORY EXAMINATIONS		
- CHEST X-RAY		
- CBC		
- URINALYSIS		
- FECALYSIS		
- ECG		
OTHERS		

DATE OF LAST ANNUAL CHECK-UP _____
IMMUNIZATIONS _____
_____
ACCIDENTS/ILLNESSES _____
_____

REMARKS:

_____
_____
_____
_____
_____

FPA INSPECTION TEAM: _____
_____
_____

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
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Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: *fpa_77@yahoo.com* Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

Annex 3.1
NOT FOR SALE

APPLICATION FOR A LICENSE TO OPERATE AS FERTILIZER HANDLERS

☐ **Manufacturer** ☐ **Importer** ☐ **Exporter**
☐ **Processor** ☐ **Indentor** ☐ **Bulk Handler**
☐ **Formulator** ☐ **Distributor**

1. a. Name of Company _____
Tin No. _____
b. Business Address and Telephone No.: _____
1. Head Office: _____
_____
2. Regional/Provincial Offices: _____
_____
_____

2. Type of Ownership: Attach Security and Exchange Commission (SEC) Registration and Articles of Incorporation/Board Resolution of Corporation and Cooperative and Special-Power-of Attorney (SPA), if representative
Single Proprietorship _____ **Corporation** _____
Partnership _____ **Cooperative** _____

3. Board of Directors and Managements:

4. Capitalization: _____
(Attach balance sheets and financial statements for the last 3 years and latest Income Tax Returns)

5. In the case of INDENTORS, list of foreign suppliers you are representing in the Philippines. Attach a copy of your contract or manufacturer's authorization.

6. In the case of DISTRIBUTORS, attach a copy of Distributorship Agreement with the mother company.

7. List of distributors and dealers given by region (Use separate sheet, update yearly).

8. What brands/grades of fertilizer or fertilizer materials do you manufacture/import/export indent or distribute. Enumerate:
_____ _____ _____
_____ _____ _____

9. Physical Facilities
List physical facilities (plant, warehouse, store) owned or rented:

	Capacity	Location
Plant _____	_____	_____
Warehouse _____	_____	_____

Store _____ _____ _____

10. **What safety features do you have in the plant/store/warehouse? Enumerate. Use separate sheet if necessary.**

11. **Number of personnel employed (broken down by departments, e.g.: Manufacturing, Sales, Personnel, etc.)** _____

12. **In case of distributors, are you capable of extending credit to your dealers?** _____
Approximate loan ceiling/annum _____

I HEREBY CERTIFY that the foregoing data and information including those in the annexes hereof are true and correct to the best of my knowledge.

IN WITNESS WHEREOF, I have hereunto set my hand this _____ day of _____ 20__ at _____, Philippines.

_____
Name & Signature of Applicant

_____
Name & Signature of Firm's President, Manager, or Authorized Representative

REPUBLIC OF THE PHILIPPINES)
PROVINCE OF _____)
MUN./CITY OF _____)

SUBSCRIBED AND SWORN TO before me this _____ day of _____ 20___ at _____, Philippines. Affiant exhibited to his/her Residence Certificate No. _____ issued on _____, 20___ at _____, Philippines.

Doc. No.: _____
Page No.: _____
Book No.: _____
Series of: _____

NOTARY PUBLIC
Until December 31, 20___
PTR No. _____

Original bears documentary stamp

Annex 3.2
NOT FOR SALE

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: *fpa_77@yahoo.com* Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

APPLICATION FOR DEALERSHIP LICENSE (NEW)

☐ Fertilizer
☐ Pesticide
☐ Both Fertilizer & Pesticide
☐ Other Agricultural Chemicals

PLEASE READ INSTRUCTION. Answer all questions completely. Be sure to write additional comments as required. This license will be automatically revoked if you are found in possession of/or selling unregistered products or products obtained from unlicensed sources.

1. Business Name : _____
   Telephone Number: _____
   TIN Number : _____

2. Business Address :
   a) Main: _____
   (Barrio) (Town) (Province)
   b) Branch/es : _____
   (Barrio) (Town) (Province)

3. Name of Owner : _____
   (Family) (First) (Middle)
   Sex: _____ Civil Status:_____ Age: _____

4. Name of Authorized Representative (attach Special-Power-of-Attorney (SPA)):
   _____

5. Type of Ownership:

   ☐ Single Proprietorship
   ☐ Partnership
   ☐ Corporation
   ☐ Cooperative

6. Capitalization: _____

7. Name of Personnel who attended Accredited Safety Dispenser's (ASD) Training:

Name `	Date & Place of Training	Rating
_____	_____	_____
_____	_____	_____

8. List of registered fertilizer and pesticide products being sold:

_____ _____ _____
_____ _____ _____

9. List of Outlets (Business Name & Address):

_____ _____ _____
_____ _____ _____

10. Physical Facilities:

Warehouse	Capacity	Store	Capacity
☐ Rent	_____	☐ Rent	_____
☐ Owner	_____	☐ Owner	_____
☐ Others	_____	☐ Others	_____

Location:

Warehouse	Store
☐ Residential Area	☐ Residential Area
☐ Commercial Area	☐ Commercial Area
☐ Agricultural Area	☐ Agricultural Area

11. What safety features do you have in the store/warehouse? Enumerate:
(Use separate sheet if necessary): _____

12. Did you have any training in pesticide handling?
_____

13. Number of personnel employed _____

14. Are you capable of extending credit to farmers in your area? Approximate loan ceiling per annum
_____

I HEREBY CERTIFY that the foregoing data and information including those in the annexes hereof are true and correct to the best of my knowledge.

IN WITNESS WHEREOF, I have hereunto set my hand this _____ day of _____ 20 _____ at _____, Philippines.

_____
Name & Signature of Applicant

_____
(Designation)

REPUBLIC OF THE PHILIPPINES)
PROVINCE OF _____)
MUNICIPALITY/CITY OF _____)

SUBSCRIBED AND SWORN TO before me this ____ day of _____ 20 __ at _____, Philippines. Affiant exhibited to his/her Residence Certificate No. _____ issued on _____, 20 _____ at _____, Philippines.

_____
NOTARY PUBLIC
Until December 31, 20 _____
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Doc. No. _____
Page No.:_____
Book No. :_____
Series of : _____

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Annex 3.3
F & P Dealer Renewal
NOT FOR SALE

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-10601/920-8238
E-mail Address: *fpa_77@yahoo.com* Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

APPLICATION FOR RENEWAL OF DEALERSHIP LICENSE

☐ Fertilizer ☐ Both Fertilizer & Pesticide
☐ Pesticide ☐ Other Agricultural Chemicals

1. Business Name : _____
   Telephone Number: _____
   TIN Number : _____

2. Business Address :
   a) Main _____
   (Barrio) (Town) (Province)
   b) Branch/es : _____
   (Barrio) (Town) (Province)

3. Name of Owner : _____
   (Family) (First) (Middle)
   Sex: _____ Civil Status:_____ Age: _____

4. Name of Authorized Representative (attach Special-Power-of-Attorney (SPA)):
   _____

5. Name of Personnel who attended Accredited Safety Dispenser's (ASD) Training:

Name	Date & Place of Training	Rating
_____	_____	_____
_____	_____	_____

6. List of registered fertilizer and pesticide products being sold (use separate sheet).

7. FPA Regional / Provincial Officer's Remarks:
   _____
   _____

Annex 3.3
F/P Dealer (Renewal)
Page – 2
<<<<<<<<<<<<<<<<

I HEREBY CERTIFY that the foregoing data and information including those in the annexes hereof are true and correct to the best of my knowledge.

IN WITNESS WHEREOF, I have hereunto set my hand this _____ day of _____ 20_____ at _____, Philippines.

_____
Name & Signature of Applicant

_____
(Designation)

REPUBLIC OF THE PHILIPPINES)
PROVINCE OF _____)
MUNCIPALITY/CITY OF _____)

SUBSCRIBED AND SWORN TO before me this ____ day of _____ 20__ at _____, Philippines. Affiant exhibited to his/her Residence Certificate No. _____ issued on _____, 20 _____ at _____, Philippines.

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Page No.:_____
Book No. :_____
Series of : _____

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Until December 31, 20____

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Annex 3.4
NOT FOR SALE

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: fpa_77@yahoo.com Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

APPLICATION FOR ACCREDITATION

ID Picture 1x1

☐ **ASD – ID** ☐ **FPAND – IBO – ID** ☐ **Mother Company**

Name: _____
Date of Birth: _____ Civil Status: _____ Sex: _____
Address: _____
Tel./ Cel. No: _____
Educational Attainment: High School: _____
College: _____
Course: _____
Name of Store / Establishment: _____
Address: _____
Tel. /Cel. No.: _____
Are you the store owner / proprietor : _____
If not, name of the store owner / proprietor : _____
Do you have any previous training concerning fertilizer & pesticide? _____
If yes, indicate nature / Title of training: _____
Date: _____ Venue: _____

ACCREDITATION APPLIED ( ) New ( ) Renewal

For licensed Mother Company (FPAND-IBO), submit the following requirements:

a. Paid-up capitalization of **Two Million Pesos (P2,000,000),** Audited Financial Statement prepared by an independent auditor as proof
b. Company's Profile
c. List of Stockists and Networkers
d. Marketing Plan

The mother company must renew annually the license as handler before any IBO Training is conducted.

For stockists and networkers list of registered product/s and corresponding price/s of the product/s set by the mother company.

_____ _____

SIGNATURE OVER PRINTED NAME DATE

REQUIREMENTS:

1. Certificate of Attendance to Accredited Safety Dispensers Training
2. Two (2) copies of 1x1 ID Picture
3. P600.00 Accreditation Fee (valid for 3 years)
4. For FPAND – IBO he/she must be a Filipino citizen

I HEREBY CERTIFY that the foregoing data and information including those in the annexes hereof are true and correct to the best of my knowledge.

IN WITNESS WHEREOF, I have hereunto set my hand this _____ day of _____ 20 ____ at _____, Philippines.

_____ _____

Name & Signature of Applicant

Name & Signature of Firm's President
Manager or Authorized Representative

REPUBLIC OF THE PHILIPPINES)
PROVINCE OF_____)
MUN./CITY OF_____)

SUBSCRIBED AND SWORN TO before me this _____ day of _____ , 20____ at _____ , Philippines. Affiant exhibited to his/her Residence Certificate **No**.: _____ issued on _____ , 20 ____at _____, Philippines.

Doc. No.:
Page No.:
Book No.:
Series of.:

NOTARY PUBLIC
Until December 31, 20 _____
PTR No. _____
_____

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Annex 3.5
FPA FORM NO: P-190
NOT FOR SALE

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: fpa_77@yahoo.com
Web site Address:http://fpa.da.gov.ph P.O. Box 2582, Q.C.

APPLICATION FOR MANGO FLOWER INDUCER CONTRACTOR

1. Name of Applicant: _____ : FPA USE ONLY
: License No.: _____
2. Address: _____ : Control No.: _____
: Remarks: _____
_____
Telephone Number:_____
TIN Number:_____

3. Capitalization:

4. Area of Coverage
_____

5. List of Chemicals Used Flower Induction	6. Source / Supplier of Chemicals	7. Equipment Use for Operation
_____	_____	_____
_____	_____	_____
_____	_____	_____

8. How long have you been a contractor?
_____

9. What safety measures do you employ in handling of pesticides?
_____
_____
_____
_____

10. Names of personnel with training or experience on application.
_____ _____
_____ _____
_____ _____

11. Place and date of FPA training.
_____ _____
_____ _____
_____ _____

ATTACHMENTS:
1. Recommendation from the Regional/Provincial Coordinator
2. License fee of ONE THOUSAND TWO HUNDRED PESOS (P1,200.00)
SIX HUNDRED PESOS (P600.00) - Member of Mango Contractors Association
3. Recommendation from the DA- MAO
4. Certification of Training for Mango Contractor

Annex 3.6
NOT FOR SALE

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: *fpa_77@yahoo.com* Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

APPLICATION FOR LICENSE TO REPACK FERTILIZER

1. Business Name:
   _____
   Telephone Number: _____TIN No. _____

2. a. ☐ FPA Distributor License Number : _____
   ☐ FPA Dealer License Number : _____
   b. Expiry Date: _____

3. Business Address:
   a. Main _____
   (Barrio) (Town) (Province)
   b. Branch/es: _____
   (Barrio) (Town) (Province)

4. Name of Owner:
   _____
   (Family) (First) (Middle)
   Sex: _____ Civil Status: _____ Age: _____

5. List of weighing scales:

Brand name/ Capacity	Location (Complete Address)	Place a check if Repacking Site
_____	_____	_____
_____	_____	_____

6. List of Products to be repacked:

_____	_____	_____
_____	_____	_____

I HEREBY CERTIFY that the foregoing data and information including those in the annexes hereof are true and correct for the best of my knowledge.

IN WITNESS WHEREOF, I have hereunto set my hand this _____day of _____, 20____ at _____, Philippines.

_____
Name & Signature of Applicant

_____
Name & Signature of Firm's President/
Manager or Authorized Representative

REPUBLIC OF THE PHILIPPINES)
PROVINCE OF _____)
MUNICIPALY/CITY OF _____)

SUBSCRIBED AND SWORN TO before me this _____day of _____ 20___ at _____, Philippines. Affiant exhibited to me his/her Residence Certificate No. _____ issued on _____, 20___ at _____, Philippines.

NOTARY PUBLIC
Until December 31, 20___
PTR NO. _____

Doc. No.: _____
Page No.: _____
Book No.: _____
Series of: _____

Original should bear documentary stamp.

Annex 3.7
NOT FOR SALE

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
E-mail Address: *fpa_77@yahoo.com* Website Address: *http://fpa.da.gov.ph*
P.O. Box 2582, Q.C.

APPLICATION FOR FERTILIZER WAREHOUSE REGISTRATION CERTIFICATE

Name of Applicant and Address
_____
_____
_____

Name, Address(es) and storage capacity(ies) of Warehouse(s). Please indicate the Street No./Barrio/Town/City & Province. (Use additional sheet if necessary).

	Name of Warehouse	Address	Storage Capacity	**Total Floor Area**
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____

Date of Application : _____ _____

Name & Signature of Owner and Authorized Representative

RISK APPRAISAL CHECKLIST FOR WAREHOUSE / STORE

Name of Establishment: _____ Date: _____
Address: _____ Auditor: _____

APPRAISAL	SCORE:			
ITEM	**1**	**2**	**3**	**4**
MAJOR				
Capability for dealing with leaks/spills i.e. does he carry absorbent materials, PPE, care cart containment of contaminated water or fine water runoff?	All the necessary requirement is in good condition, readily accessible, adequate containment of spills, fine water or runoff	All the necessary requirement is in good condition, not readily accessible, partial containment of spills, fine water or runoff water.	Some necessary equipment available, poor containment of spills, fine water or runoff water	No capability at all
Ventilation	Good	Fair	Marginal	Poor
Housekeeping/tidiness	Good	Fair	Marginal	Poor
Product storage/stacking	Orderly, neat, stable, easily accessible	Room for improvement	Not very well ordered Slightly disordered	Generally haphazard, poor stack stability
Capability for fighting small fires, i.e. availability of hand held extinguishers, positioning and maintenance	Sufficient number of extinguisher positioned to service personnel trained to use them.	Insufficient no. but serviceable with at least 1 person trained to use them	Extinguishers available but slightly unserviceable. Access difficult, doubts about ability to use them.	No extinguishers available
General attitude towards health and safety i.e. appreciation of hazard/safety awareness.	Good	Fair	Marginal	Poor
Hygiene standard i.e. facilities for washing, consumption of food/drink in work area.	Washing facilities available with separate eating area.	Washing facilities available, no separate eating area.	Inadequate washing facilities. No separate eating area.	Poor
Waste disposal (presence of waste e.g. broken bottles/ packages/spills/etc.)	None	Small amount	Moderate	Poor

RISK APPRAISAL CHECKLIST FOR WAREHOUSE / STORE

Name of Establishment: _____ Date: _____
Address: _____ Auditor: _____

APPRAISAL	**SCORE**:							
ITEM	1		2		3		4	
MAJOR								
Animal feeds/fertilizers/ foodstuff/etc	Such product not stored	☐	Stored in a physically separate area	☐	Stored in the same area but not adjacent to pesticides	☐	Stored adjacent to pesticides	☐
TOTAL SCORE: MAJOR ITEMS								

ASSESSMENT : (MAJOR APPRAISAL ITEMS)

9-18 - Generally acceptable	standard can be further improved by attention to specific aspects.
19-24 - Minimum acceptable	standard, remedial action on improvement maybe required to be done within 5 months to one year on specific aspect.
25-30 - Less than acceptable	standard, immediate remedial action on improvements required for continued operation.
31-36 - High risk	definitely not acceptable, immediate closure/suspension of operations should be recommended until significant improvement in standards is achieved.

"Risk Appraisal Checklist"
-page 3-

RISK APPRAISAL CHECKLIST FOR WAREHOUSE / STORE

Name of Establishment: _____ Date: _____
Address: _____ Auditor: _____

APPRAISAL ITEM	SCORE: 1	2	3	4
SUPPLEMENTARY				
Emergency Exit	Exits clearly marked accessible and easily operable ☐	Exits accessible and easily operable but not clearly marked ☐	Exits are obstructed or locked ☐	Does not exist ☐
Response time of fire service	Less than 10 minutes ☐	Less than 30 minutes ☐	More than 30 minutes ☐	No realistic response ☐
Security when closed	Premises securely locked, windows guarded, etc. ☐	Premises securely locked, access possible via unguarded windows, etc. ☐	Premises locked with access available with relatively little effort. ☐	No realistic security. ☐
Floor construction	Impermeable to liquid, no open drains. ☐	Predominantly impermeable to liquids, no open drains ☐	Predominantly impermeable to liquids, no open drains ☐	Permeable to liquids and/or open drains. ☐
Environmental risk i.e. proximity to home/shops/ schools/waterways/etc.	More than 200 meters away ☐	15-100 meters away ☐	No direct adjacent within 15 meters. ☐	Directly adjacent ☐
Materials of construction	Non-combustible ☐	More than 70% non-combustible ☐	Less than 70% non-combustible ☐	Combustible ☐

TOTAL SCORE : SUPPLEMENTARY ITEMS

6 -12 – Generally acceptable standard, can be further improved by attention to specific aspects.
13-18 - Minimum acceptable standard, remedial action or improvement maybe required to be done within 6 months to one year
19-24 - Non acceptable standard, immediate remedial action on major improvements required.

"Risk Appraisal Checklist"
-page 4-
- - - - - - - - - - - - - - - - - -

RECOMMENDATIONS: (Indicate specific improvements needed, timetable, etc. Use separate sheet if necessary)

_____
_____
_____

CONFORME: _____
Owner /Authorized Representative
Signature above printed name

Annex 4.1

EO226 – The Omnibus Investment Code of 1987 as Amended by RA 7918.

1. All registered enterprises with the Board of Investment (BOI) can avail of this.

2. Chapter II of EO 226 provides for the preparation of the Annual Investment Priorities Plan (IPP) in consultation with the appropriate government agencies and the private sector. Under the President's Memorandum Order 211 (s2006), incentives shall be granted to enterprises engaged in the commercial processing of agricultural and fishery products including their by-products and wastes. For agriculture, basic industries such as organic and inorganic fertilizers and among others, food and forestry-based industries such as the following are covered:

a. Processed food

- Production and processing of halal meat and halal foods
- Leguminous and other vegetable-based protein
- Spices processing (may be integrated with plantation)
- Vegetable oils
- Production of food crops (may be integrated with postharvest processing and other vegetables)
- Integrated coconut processing and plantation
- Seaweeds production and processing
- Cassava processing and other root crops (maybe integrated with plantation)
- Fruit processing and plantation
- Aquaculture (fish production and processing)
- Tropical fish production and processing
- Shrimps and prawn
- Lapu-lapu and other marine products
- Corn flour mill (integrated with plantation)
- Young corn production (may include processing/ canning)
- Mushroom culture and processing
- Sweet potato plantation and processing

b. Cutflower production, industrial tree plantation, abaca pulp plantation and processing, palm oil plantation/processing, coffee processing, feeds production, tobacco plantation and processing, production of beverage crops, production of plantation crops and other medical herbs/ essential oil plants, production of livestock and poultry (including dairy products):

- Beef
- Carabao
- Goats and sheep
- Frozen semen and embryos

c. Quality seeds and seedlings of fruit trees and other planting materials, sugarcane plantation, processing and refineries

3. Available incentives

Art 39, para (a) to (m) of EO 226, as amended by R.A. 7918 (s. 1995), provides for the following incentives to registered enterprises.

a. Income Tax Holiday
b. Additional Deduction for Labor Expense
c. Tax and Duty Exemption on Imported Capital Equipment and its accompanying spare parts
d. Tax Credit on Domestic Capital Equipment
e. Simplification of Customs Procedures
f. Unrestricted Use of Consigned Equipment
g. Employment of Foreign Nationals
h. Exemption on Breeding Stocks and Genetic Materials
i. Tax Credit on Domestic Breeding Stocks and Genetic Materials
j. Tax Credit for Taxes and Duties on Raw Materials
k. Access to Bonded Manufacturing/Trading Warehouse System
l. Exemption from Taxes and Duties on Imported Spare Parts
m. Exemption from Wharfage Dues and any export tax, duty, impose and fee

4. Procedures on how to avail of incentives

a. Application for registration may be filed with the Board of Investments, or in the regional offices of the Department of Trade and Industry (Rule III, Sec. 1 of EO 226 IRRs).

b. Rule II of EO 226 IRRs provides for the qualification of applicants. Philippine nationals and foreign nationals have separate qualification requirements. Export traders and service exporters shall at all times be at least 60% owned by Philippine nationals (Sec.1). Specific requirements also include: area of investment, citizenship of the members of the Board, etc., (Sec.2).

c. Rule IV, Sec. 1 of EO 226 IRRs provides for the application procedures and terms and conditions of the application of registration. Rule VI of EO 226 IRRs provides for varying incentives for new registered pioneer firms (6 years from commercial operations), new registered non-pioneer firms (4 years from commercial operations), and expanding firms (3 years from commercial operations).

Annex 4.2

GUIDELINES IN THE EXPORTATION OF RAW MATERIALS OR FINISHED FERTILIZER PRODUCTS

1. No person shall be allowed to engage in the business of exporting fertilizers except under a license issued by FPA.

2. No product mentioned herein may be exported unless previously registered with the FPA. Export of fertilizer samples shall not be covered by this registration requirement.

3. FPA Letter of Authority to Export has to be secured before any shipment is made. Requirements for FPA permit to export are as follows:

- Letter of Request to include the following: Certification of Origin/Source from Producer/Seller duly licensed by FPA
- A detailed price build-up to include cost from time of excavation (for naturally occurring fertilizers) or receipt of materials (for imported or locally-processed materials) to the time of loading on a seagoing vessel. (It is the shippers' option to quote on a C&F FO basis.)
- Certified Analysis as processed and packed for delivery (by FPA analytical laboratory or recognized FPA laboratories SGS, BSWM, PCA, PIPAC, SentroTek, Jefcor, etc.).
- Copy of buyer's Purchase Order/Contract
- Copy of Proforma Invoice.

4. Imported traditional fertilizer grades may not be re-exported unless authorized by the FPA.

5. Commitments to deliver shall not extend beyond six (6) months from issuance of an FPA Letter of Authority.

6. Export of products intended for countries where the Philippines has no trade relations has to be cleared by the exporter with other appropriate agencies as the

Department of Foreign Affairs (DFA) before FPA issues an export authority.

7. Exportation of any type of fertilizer shall further be subjected to rules and regulations promulgated by DFA and other agencies governing all exports.

Annex 4.3

THE AGRICULTURE AND FISHERIES MODERNIZATION ACT OF 1997

IMPLEMENTING RULES AND REGULATIONS GOVERNING THE GRANT OF TARIFF EXEMPTIONS ON THE IMPORTATION OF AGRICULTURE AND FISHERIES INPUTS, MACHINERY AND EQUIPMENT UNDER SECTIONS 108 TO 110 OF REPUBLIC ACT 8435(Excerpt)

Rule I
PRELIMINARY PROVISIONS

Section 2. **Objective** - These rules and regulations shall govern the importation of agriculture and fisheries inputs, machinery and equipment exempt from the payment of tariff and duties.

Section 4. **Definition of Terms** - The terms used in this set of IRRs are defined as follows:

a). *Agriculture Enterprise* refers to any single proprietorship, partnership, cooperative, corporation, farmer's organization/association or juridical entity engaged in the cultivation of the soil, planting of crops, growing of fruit trees, raising of livestock, or poultry, the harvesting and marketing of such farm products, and other farm activities and practices.

b). *Agriculture Inputs, Machinery and Equipment* refers to goods that are used or employed in cultivation of the soil, planting of crops, growing of fruit trees, raising of livestock or poultry, the harvesting and marketing of such farm products, and in the conduct of farm activities and practices.

Rule II
COVERED IMPORTS

Section 1. The lists of agriculture and fisheries inputs, machinery and equipment eligible for tariff exemptions for five years from the date of the effectivity of this Administrative Order (AO) shall be issued in two

batches, according to their appropriate eight-digit harmonized commodity description and coding system in the Tariff and Customs Code of the Philippines.

a). Annex A covers products which shall be imported duty-free and where the rules on the application/certification and monitoring procedures of this AO shall not apply.

b). Annex B shall cover eligible products for tariff exemption, subject to the application and certification procedures outline in Rule V of this set of IRRs.

Rule III
COVERED ENTERPRISES

Agriculture and fisheries enterprises as defined in Sections 4 a) and I) of Rule I of this set of IRRs shall be eligible for exemption from the payment of tariffs on imported inputs, machinery and equipment that are for their exclusive use, subject to the provisions outlined in Rule V to VIII of this set of IRRs.

Rule IV
IMPORT CONSOLIDATORS

Section 1. Import consolidators as defined in Section 4 m) of Rule I of this set of IRRs shall represent and assist those eligible agriculture and fisheries enterprises that are unable to undertake direct imports due to the small size of orders or lack of direct import experience.

An import consolidator shall be prohibited from diverting for its benefit or use, nor shall sell, barter, exchange, lease or transfer to third persons, the imported agriculture and fisheries inputs, machinery and equipment. Circumvention of this provision by the import consolidator shall be subject to the provisions under Rule VIII of this set of IRRs.

Section 2. Import consolidators shall be allowed to import duty-free agriculture and fisheries inputs, machinery and

equipment, provided that they have secured the following:

a) Certificate of Registration from the Cooperative Development Authority (CDA), Securities and Exchange Commission (SEC), or with the Department of Trade and Industry as the case may be;

b) Notarized letter of endorsement duly signed by all participating eligible agriculture and fisheries enterprises, attached with their approved individual CEs, allowing the import consolidator to import agriculture and fisheries inputs, machinery and equipment on their behalf; and

c) Aggregated and consolidated import purchase orders of all participating eligible agriculture and fisheries enterprises for each import transaction.

Rule V
APPLICATION/CERTIFICATION PROCEDURES

Section 1. Agriculture and fisheries enterprises interested in availing of tariff-exempt importation shall apply for a Certificate of Eligibility (CE) from the DA or its deputized agencies. The CE entitles an enterprise for duty free importation of agriculture and fisheries inputs, machinery, equipment listed. However, the CE shall be an accountable form and shall not be transferable.

The DA or its deputized agency shall, in consultation with the Department of Finance and the Board of Investments in appropriate cases, issue the CE.

Section 2. The offices deputized to issue CEs are:

a) The DA's Regional Field Units (RFUs),

b) The CDA's regional offices,

c) The Department of Trade and Industry's (DTI) regional and provincial offices, and

d) The BOI and its regional offices.
The Head of the above-listed offices shall be the only signatory in the CE.

Section 3. The DA or any of its deputized offices upon evaluation of the application letter and supporting documents as follows shall issue Certificates of Eligibility (CE) to agriculture and fisheries enterprises:

a) In the case of corporations and partnerships, certified copy of the registration documents of enterprise issued by the SEC; or

b) In the case of single proprietorship, a certified copy of the registration documents of enterprise issued by the DTI or a certified copy of Business/Mayor's Permit, as the case may be; or

c) In the case of a cooperative, a certified copy of the registration documents issued by the CDA; or

d) In the case of farmers'/fisherfolk's organizations and associations, a certified copy of the registration documents of enterprise issued by the SEC or an accreditation by appropriate government agency; and

e) Audited financial statements for the previous year in cases where the limit for the value of the tariff-exempt transaction will be based on the enterprise's declared assets,

f) Pro-forma invoice, and

g) A sworn statement that the input, machinery, and equipment to be imported tariff-exempt will be for the exclusive use of the importing agriculture/fisheries enterprise.`

The CE shall be valid throughout the effectivity of this AO, unless invalidated or revoked under Rule VIII.

Section 4. The peso value of each import transaction shall not exceed the declared assets of the eligible agriculture and fisheries enterprise as evidenced by the audited financial statement of the enterprise for the previous year, or the authorized capital stock as evidenced by the SEC registration documents.

Section 5. The CE, a sample of which is attached as Annex C, shall contain the following information:

a) Name of the agriculture or fisheries enterprise;

b) Type of agricultural activity engaged in;

c) Date of issuance of the CE;

d) Total allowable peso value of import transaction, as set in Section 4 of this Rule; and

e) Tables recording the requested and actual tariff exempt import transactions made by the entity.

Rule VI
TARIFF EXEMPT IMPORT PROCEDURES

Section 1. Upon arrival of the imported agricultural and fisheries inputs at the point of entry into the Philippines, the importing agriculture or fisheries enterprise and/or import consolidator shall present the following documents to the Customs Collector to facilitate the exemption of the imports from tariff:

a) Commercial invoice;

b) Bill of Lading; and

c) In the case of agriculture and fisheries enterprise, original plus two copies of the CE with supporting documents listed under Section 3 of Rule V of this set of IRRs; or

d) In the case of an import consolidator, original plus two copies of the documents listed under Section 2

of Rule IV and (Section 3 e to 3 g) of Rule V of this set of IRRs.

Section 2. In processing the import transaction, the Customs Collector shall record on the space provided in the CE the value, quantity and the commodity code of the imported agriculture or fisheries input.

Section 3. One copy of the CE to be retained by the BOC and the other forwarded to the issuing office. The original CE shall be returned to the agriculture or fisheries enterprises for future use.

Rule VII
MONITORING AND REPORTING

The DA shall, in collaboration with the DTI, CDA and BOI monitor the domestic markets to document and guard against the diversion of imports under this set of IRRs for resale in the domestic market. The DA shall promote the collaboration of NGOs and the private sector in the monitoring process. Where violations are suspected, these agencies shall collaborate so that investigations and prosecution by the police and the Office of the Solicitor General (OSG) may proceed. The DA, CDA, DTI, BOI, DOF, BOC, and DOJ shall meet and agree on the mechanics of such monitoring. The monitoring arrangements shall be jointly approved and issued by the concerned agencies on or before 31 December 1998.

Rule VIII
PENALTIES

Section 1. Any person, partnership, corporation, association and other juridical entity found circumventing the provisions of this set of IRRs shall suffer the penalty of imprisonment for a period of not less than six (6) months but not more than one (1) year, or a fine equivalent to two hundred percent (200%) of the value of the imported materials, or both, at the discretion of the court, and the accessory penalties of confiscation of the imported goods in favor of the government and revocation of the privileges given under this title.

In cases where the violator is a juridical entity, the officers responsible in the violation of this set of IRRs shall suffer the penalty of imprisonment prescribed in this section.

The importation of goods equivalent to or exceeding the declared assets of the single proprietorship, partnership, or farmers/fisherfolk organizations and associations or the authorized capital stock in case of corporations and cooperatives, and/or the resale of the imported goods shall be a prima facie evidence of the violation of the provisions of this set of IRRs.

Section 2. Based on the investigations by the appropriate offices, and on the results of the import monitoring mechanism established in this set of IRRs, information on actions by any entity considered by any person or the concerned agencies to be in violation of this set of IRRs shall be endorsed to the Economic Intelligence and Investigation Bureau (EIIB) for proper legal action.

Section 3. Any commodities under the custody of the BOC and which are determined to have been imported in violation of any of the provisions of this set of IRRs shall be confiscated in favor of the government of the Republic of the Philippines and disposed of according to the usual procedures of the BOC.

Section 4. Any government employee or official who knowingly issued a Certificate of Eligibility to an enterprise which is not eligible under this set of IRRs shall be imposed the penalty of removal from service, demotion in rank, suspension for not more than one year without pay or fine in an amount not exceeding six months salary in addition to such other penalties imposed by other laws, rules and regulations which were violated.

Annex 4.4

REVISED GUIDELINES GOVERNING THE IMPORTATION OF AGRICULTURAL AND FISHERY COMMODITIES INTO THE PHILIPPINES

(Sanitary and Phyto-Sanitary (SPS) Regulations)

I. BACKGROUND

The DA is adopting revised guidelines in the processing of import papers to:

- protect against the entry of unsafe agricultural products;
- streamline and harmonize processes across DA agencies involved in the processing of import papers;
- deter the incidence of agricultural smuggling; and
- facilitate the monitoring of actual imports.

II. SCOPE

The following guidelines shall apply to all agricultural and fishery commodities, fertilizers and pesticides, feeds, veterinary drugs, and biological products, of which importation is regulated by the DA and its bureaus and agencies on the basis of sanitary and phyto-sanitary (SPS) regulations and quantitative import restrictions.

A. SPS IMPORT CLERANCE/PERMIT

1. The importation of commodities subject to SPS regulations shall require an SPS Import Clearance while the importation of commodities subject to quantitative restrictions shall require an Import Permit.

2. The SPS Import Clearance shall be obtained from the concerned DA agencies which are:

   a. the Bureau of Animal Industry for live animals, feeds, veterinary drugs and biological products, meat and meat products, and by-products of animal origin.

b. the Bureau of Plant Industry for plants, planting materials, plant products and potential plant pests

c. the Fertilizer and Pesticide Authority for fertilizers and pesticides

3. The Import Permit shall be obtained from the concerned DA agencies which are:

a. the Bureau of Fisheries and Aquatic Resources for live fish, fish and fishery products, biomolecules, aquatic products, and derivatives

b. the National Food Authority for rice

c. the Sugar Regulatory Administration for sugar

4. A Clearance/Permit shall be used for only one shipment.

5. The requirement for the application of the SPS import clearance include

a. Duly accomplished application form

b. Pro-forma Invoice

c. Notarized Affidavit of Undertaking

d. Official Receipt

e. Other commodity specific requirements

6. The application with complete requirements shall be filed with the relevant Service of the concerned Agency or Bureau.

7. Only applications with complete requirements shall be accepted.

8. Applications that satisfy all requirements shall be granted a Clearance/Permit. The Clearance/ Permit shall be prepared in four copies to be distributed as follows:

   a. Original client copy to be surrendered to quarantine officer

   b. Duplicate client copy

   c. BOC copy

   d. Issuing agency copy

9. To monitor and ensure the use of Clearances and Permits, the following shall be observed for shipments arriving by sea:

   a. Only the duplicate client copy of the Clearance/Permit shall be initially released to the applicant while the original shall be retained by the issuing agency.

   b. The duplicate client copy shall be used to transact with the exporter, financial institution, and shipping company. However, the same cannot be accepted to transact with BOC and the Quarantine Offices at the border. Thus, the duplicate client copy shall be stamped with the words:

      "For business transaction only. NOT FOR CUSTOMS AND QUARANTINE CLEARANCE"

   c. The applicant shall submit to the issuing Agency photocopies of the bill of lading, invoice, and health/phyto-sanitary/veterinary certificate from the exporting country not later than 15 days from release of the duplicate; otherwise, the Clearance/Permit shall be rendered null and void. The original authenticated copy of the SPS Import

Clearance shall then be released to the applicant immediately.

..

10. For shipment arriving by air, the original copy together with other copies of the Clearance/ Permit shall be released to the applicant upon approval.

11. On arrival of the import shipment, the original copies of the SPS Import Clearance/Permit, bill of lading, invoice, and health/phyto-sanitary/veterinary certificates shall be presented to the Quarantine Officer (QO). Following satisfactory inspection of the documents and shipment, the QO shall issue a Notice of Release together with the BOC copy, which shall then be presented to the BOC for cargo release.

B. Licensing of Importers, Registration of Products, and Accreditation of Facilities and Foreign Establishments

1. Importation of the following commodities shall require the pre-registration of the product with the concerned Bureau or Agency:

   a. Feeds and feedstuff – BAI

   b. Veterinary drugs and biological products – BAI

   c. Pesticides and fertilizers – FPA

2. The importation of the following commodities shall require that the applicant will use or import from facility(ies) and establishment(s) licensed/registered/ accredited by the concerned Bureau or Agency as follows:

Commodity	Facility/Established	Agency
Fresh fruits and vegetables	Domestic cold storage, foreign (exporting) established	BPI
Live animals	Domestic quarantine farms	BAI
Feeds and feedstuffs	Foreign and domestic feed product establishments	BAI
Veterinary drugs and products	Domestic veterinary drug and product establishments	BAI
Veterinary biological products	Veterinary biological products, foreign and domestic establishment, domestic cold storage, distributor's warehouse	BAI
Meat and Meat Products	Foreign meat establishment, domestic meat establishment, cold storage	NMIS/BAI
Live fish	Aquaculture farms	BFAR
Chilled/frozen fish	Domestic cold storage	BFAR
Pesticides and fertilizers	Warehouse	FPA

3. The importation of the following commodities require the licensing, registration or accreditation of importers and handlers by the concerned agency:

Commodity	Agency
Plant products	BPI
Live animals	BAI
Feeds and feedstuffs	BAI
Veterinary drugs and products	BAI
Veterinary biological products	BAI
Meat and meat products	BAI/NMIS
Live fish	BFAR
Fish and fishery products	BFAR
Pesticides and fertilizers	FPA

C. Other Requirements

1. Certificate of fumigation, phyto-sanitary certificate, or the presence of the ISPM 15 WPM Marking from the exporting country shall be

required for regulated wood and wood packaging materials. The needed attachments are the following:

a. Pro-forma application for SPS Import Clearance /Permit

b. Pro-forma SPS Import Clearance/ Permit

c. Pro-forma application for Registration of Product

d. Pro-forma Registration of Product Certificate

e. Pro-forma application for LRA of Establishment /Facility

f. Pro-forma LRA of Establishment/Facility Certificate

g. Pro-forma application for LRA of Importer /Handler

h. Pro-forma LRA of Importer/Handler Certificate.

Annex 4.5

IMPORTATION AND EXPORTATION BY THE PHILIPPINE NATIONAL SINGLE WINDOW (NSW)

Asean leaders agreed to adopt the Single Window approach at the national and regional levels on 9 December 2006. The NSWs of Brunei, Indonesia, Malaysia, Philippines, Thailand and Singapore shall be ready by 2008. On December 27, 2005, President Arroyo issued EO 482 to create the NSW Task Force for Cargo Clearance.

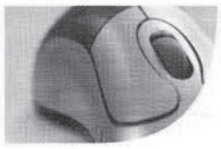
National Single Window (per EO 482) is to facilitate the implementation of electronic processing of trade documents. A Memorandum of Understanding (MOU) between Bureau of Customs and Department of Agriculture was signed in December 2006 for the pilot implementation of NSW.

The Philippine NSW is a computerized internet-based system that allow parties involved in trade to lodge information and documents with a single entry point to fulfill all import, export and transit-related regulatory requirements.

The project is being implemented through the mandate of Executive Order 482 dated December 27, 2005. There are about 40 government agencies involved in the issuance of import and export licenses, permits and clearances for trade facilitation over Philippine borders including FPA. Stakeholder's Quick Guide and Benefits can be seen in pp. 218-219.

FPA import permits can also be checked through cellular phone using the syntax: BOCE2M space FPA space, < PERMIT # > space <TIN #> space <MPIN>. MPIN will be issued to authorized user by enrolling their mobile phone number to the *e2m* system.

Stakeholder's Quick Guide



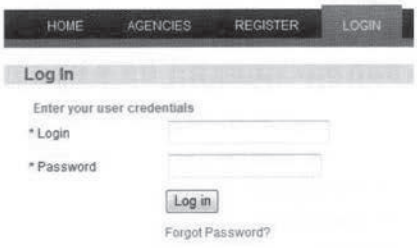
1 Access the National Single Window

- Go to internet explorer and key in https://nsw.gov.ph, then press enter.

2 Trader's (Importer/Exporter) Registration

- On the REGISTER page, type in the following mandatory fields :
  *Log-in (use your TIN number, numeric only, no hyphens)
  *Password (use your 12 digit Customs Client Number)

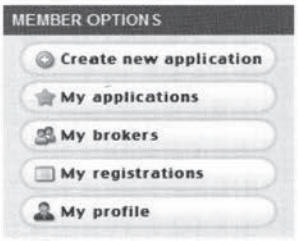
  *Default password. Once you are able to log in to the system, change your default password (CCN) and complete your user profile.



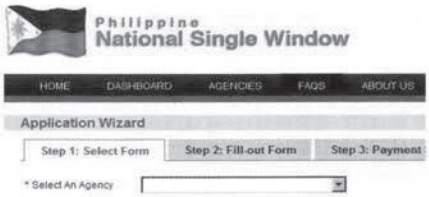
A valid e-mail address is required for notification purposes.

3 Create an Application

- From the Dashboard tab, go to "Member Options", then click on "Create New Application" button.



- In the "Application Wizard" page, follow the step-by-step process of creating your application.



- Go to HELP button and click "How do I create new application?" for more details.

4 Submission of Application

- Print the completed application form in duplicate copies. Then submit them with the necessary supporting documents to the receiving government agency.
- Pay processing fee if applicable.
- Always check the status of your application by viewing the NSW Dashboard.

To learn more about updating your application and registering your broker, please click the HELP button
or
Contact NSW Help Desk at (632) 5135301 to 02 and/or e-mail at helpdesk@nsw.gov.ph

Philippine

National Single Window

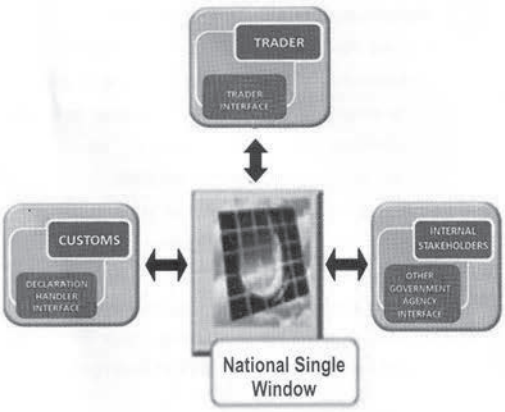
The Philippine **National Single Window (NSW)** is a computerized internet-based system that allows parties involved in trade to lodge information and documents with a single entry point to fulfill all import, export and transit-related regulatory requirements.

The project is being implemented through the mandate of **Executive Order 482** dated December 27, 2005.

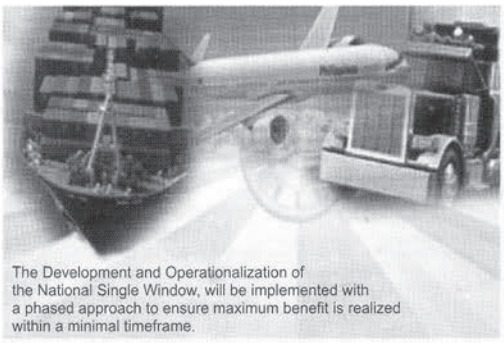
There are about 40 government agencies involved in the issuance of import and export licenses, permits and clearances for trade facilitation over Philippine borders.

The costly and time-consuming processing for imports and exports documentation required in business has resulted for further inefficiencies.

With the introduction of NSW, the trade and logistics industry through the help of Integrated ICT systems will use a single internet-based interface with the 40 government agencies.



National Single Window Environment



The Development and Operationalization of the National Single Window, will be implemented with a phased approach to ensure maximum benefit is realized within a minimal timeframe.

NSW Benefits From Trade Perspective

- Lower business costs
- Faster trade documentation process and release times
- Easier trader compliance
- More effective and efficient deployment of resources
- Increased transparency and predictability of government processes.
- Business transactions to be performed with government agencies regardless of time and location via internet and mobile phone.

Features

Phase 1

- Electronic submission of an application
- Viewable transaction status in the electronic dashboard

Phase 2

- Electronic submission of supporting documents
- Mobile and electronic payment
- Secured submission using digital signature
- Executive Dash Board

This is a Project towards ASEAN Integration

Led by

Bureau of Customs

Developed by

Crown Agents

Annex 4.6

SAMPLING PROCEDURE FOR FERTILIZER PRODUCTS

The collection of representative samples is of crucial importance because if not drawn correctly, the analysis carried out on such samples will serve no purpose. Therefore, fertilizer samples must be gathered in accordance with the procedure of withdrawal of samples PNS 85:1986.

1. PROCEDURE IN GATHERING SAMPLES

a. Identify the specific lot of fertilizer to be sampled at various points from plow to the dealers' shelf.

b. Follow the PNS sampling scale to decide on the number of bags to be sampled.

c. Identify the bags where samples are to be drawn following the PNS procedure.

d. Samples drawn from the different bags should be thoroughly mixed together. This is called composite samples.

e. The composite sample should be approximately 1.5 to 2.0 kg.

f. The composite sample will be divided into three (3) subsamples of approximately one half kilo each. These will be kept in clean, dry plastic bottles or bags with appropriate labeling.

The samples should be accompanied by the following details:

- Date of sampling
- Type/Grade of sample
- Supplier
- Name & Address of dealer/distributor where samples were drawn.
- Name of FPA personnel who drew the samples.

1.1 DISTRIBUTION OF COMPOSITE SAMPLE:

The three (3) subsamples prepared from the composite sample will be distributed as follows:

a. One to the laboratory for analysis.

b. One to be retained by FPA for possible use in case of future dispute.

c. One for the owner/storekeeper.

1.2 PRECAUTIONS WHEN GATHERING SAMPLES

a. Collect the samples in the presence of the owner/storekeeper or custodian of the fertilizer as witness.

b. Take care not to damage substantially the commercial value of the fertilizer.

c. Avoid collection of samples from damaged containers or torn bags and from hard and lumpy fertilizer unless sampling for the degree of damage.

d. Avoid sampling during transit of the consignment.

e. FPA personnel gathering the sample should issue an acknowledgement receipt for the materials taken (see attached FPA form).

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
FERTILIZER AND PESTICIDE AUTHORITY
FPA Bldg., BAI Compound, Visayas Avenue, Diliman , Quezon City 1101
Tel. No.: 920-8173
Telefax : 441-1601/920-8238
P.O. Box 2582, Q.C.
E-mail Address: *fpa_77@yahoo.com* Website Address: *http://fpa.da.gov.ph*

ACKNOWLEDGEMENT RECEIPT

This is to certify that I, _____ , has taken the
(FPA Personnel/Name)

following products/materials for quality monitoring:

	Name of Product	**Packing/Volume**
1.	_____	_____
2.	_____	_____
3.	_____	_____

at_____ on _____ in the
(Name of Store/Company & Location) (Date)

presence of : _____
(Manufacturer/Storekeeper/Owner's name
or designated representative)

Please note that the cost of analysis will be borne by the owner/manufacturer/importer.

Sampled by:

_____
Signature of FPA Personnel

Conforme:

_____
Signature of Manufacturer/Importer or Store owner/Keeper

Accomplish in triplicate:
1. Owner/Manufacturer/Importer
2. FPA-Quezon City
3. FPA-PDO IV/PDO II

2. METHOD OF SAMPLING SOLID FERTILIZER PNS 85:1986

a. SCORE

This standard specifies the method used in obtaining samples of granulated crystalline or pulverized solid fertilizer materials in bags or in bulk.

b. APPARATUS

b.1 **Slotted Single or Double Tube Trier** – The slotted single (Figure 1a) or double trier (Figure 1b) shall be with a solid core tip constructed of stainless steel or brass. Stainless steel is required for sample on which micronutrients are to be determined. This tube trier is primarily used in taking samples from bagged fertilizers.

b.2 **Stream Sampling Cup** – The stream sampling cup (Figure 2) is primarily used in taking samples in transfer belt or spout.

b.3 **Container for Unground Sample** – The container for unground sample shall have the capacity of one liter and made from corrosion-resistant material with a moisture proof barrier, or fabricated from material which will not permit moisture to enter or leave the sample. Polyethylene plastic bags could also be used.

b.4 **Containers for Ground Samples** – The containers for ground samples shall be plastic or glass, 250 mL capacity, with mouth airtight cap.

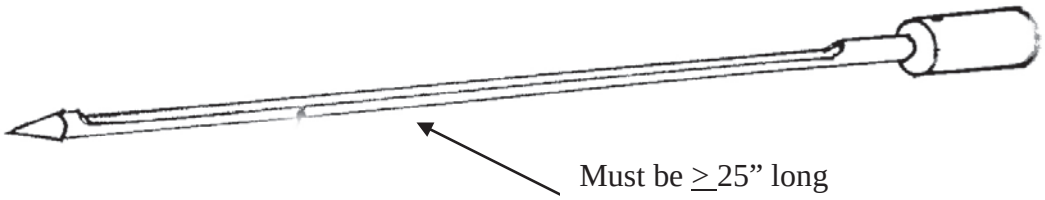


FIGURE 1A: SINGLE TUBE TRIER

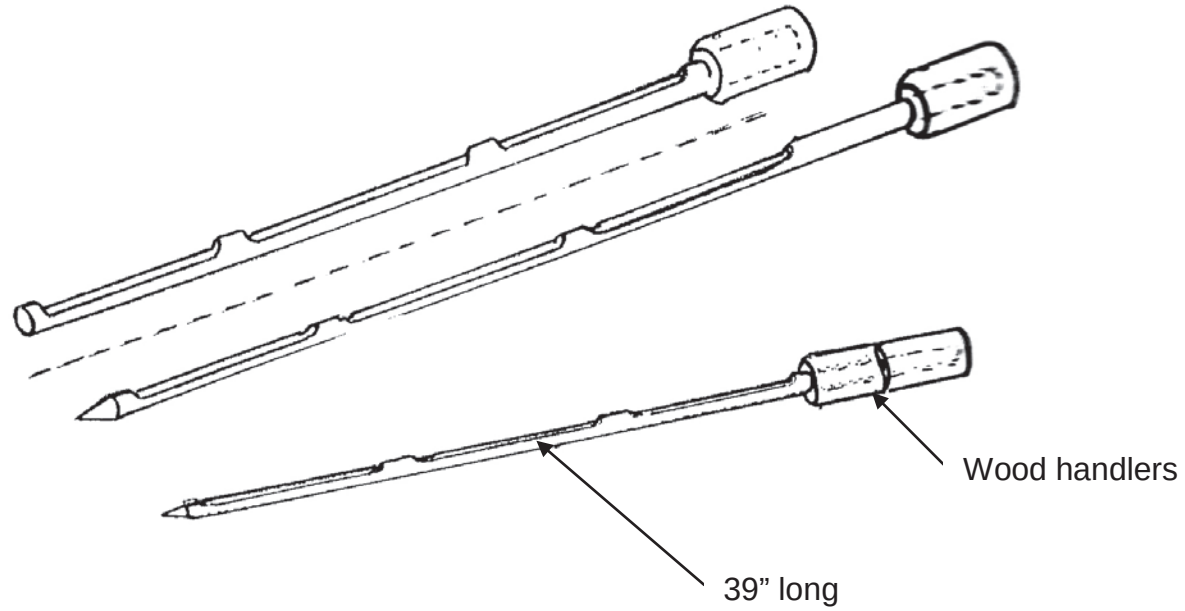
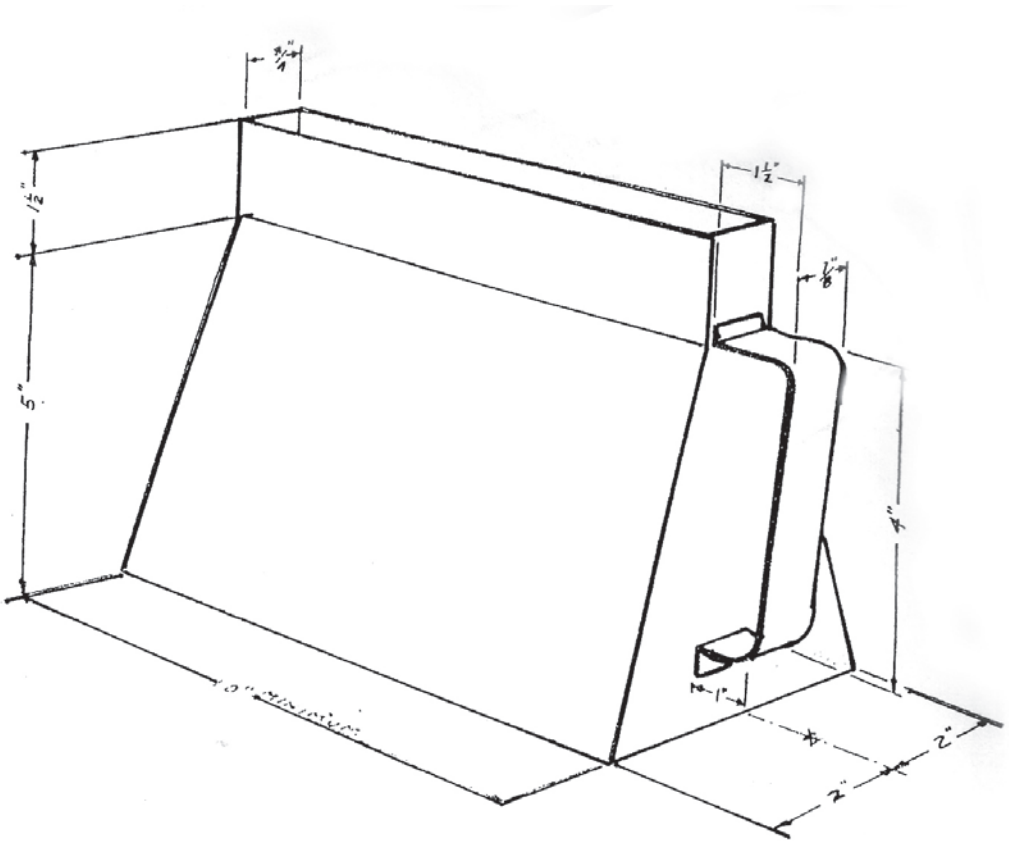


FIGURE 1B: DOUBLE TUBE TRIER



Fabricated from: IGGA-GALVANIZED IRON
OR 18-20 GA-STAINLESS STEEL
TYPE 304

FIGURE 2: STREAM SAMPLING CUP

c. PROCEDURE

c.1 Bagged Fertilizers

c.1.1 Scale of Sampling – The number of bags to be chosen from a lot shall depend on the size of the lot as given in Table 1 below.

Table 1. Sampling for Bagged Fertilizer

Lot Size, Bag (N)	No. of bags to be selected (n)
2 – 8	2
9 – 27	3
28 – 64	4
65 – 100	5
101 – 300	6
301 – 500	7
501 – 800	8
801 – 1,200	9
1,201 – 1,700	10
1,701 – above	10 + 1 bag for every 500 additional bags

These bags shall be chosen at random from the lot. In order to ensure randomness of selection, a random table, as agreed between the purchaser and vendor, shall be used. In case that a random table is not available, the following procedure shall be used.

Count the containers from 1,2,3, etc. up to r and so on in one order. Thus, every rth container counted shall be withdrawn from the lot to give a sub-sample for the test, where r is the internal part of the N/n. N is the total number of bags in the lot and n is the number of bags to be sampled from the lot.

c.1.2 Collection of Sample

1. Take one core from each sampling bag.

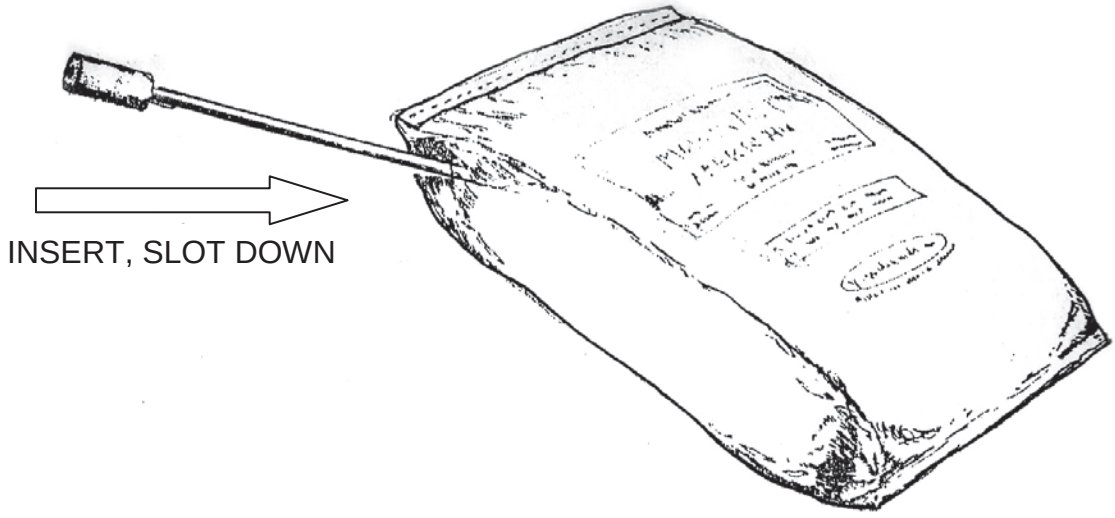
2. Place bag in a horizontal position, then roll or flip over one or more time.

3. If valve-type bag, sample through valve. If the bag, is sewn make an X-cut with a knife near the seam of the corner.

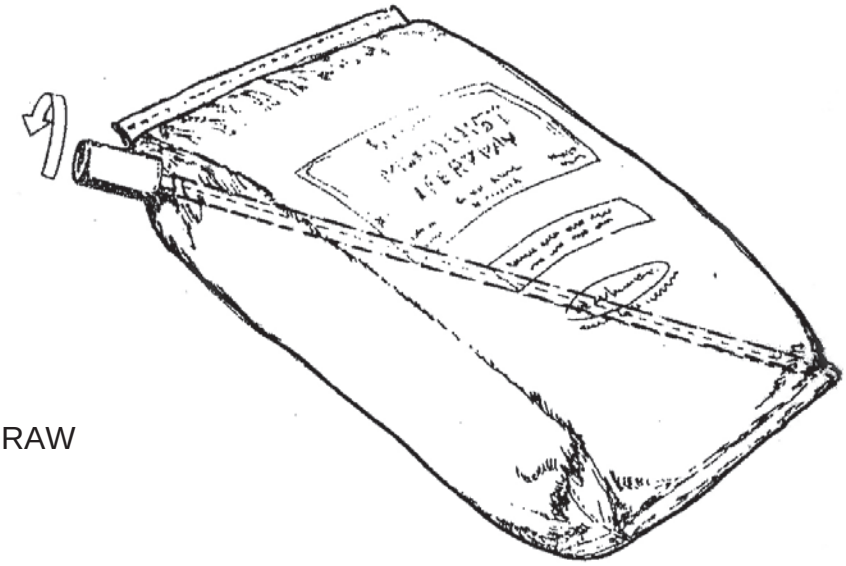
4. Insert with single tube trier so that it extends diagonally from corner (Figure 3) with slot down. Half turn to bring the slot up. Jar bag slightly to fill the trier, and remove carefully so as not to drag material out of it with the bag edges.

5. Transfer all cores to the container for unground samples, or if desired, each core maybe completely transferred to a narrow stainless steel U-shaped trough, slightly longer than the trier length. The trough is usually fitted with a handle at one end and a pouring spout at the opposite end. The trough is used to transfer sample portions to the larger container which holds the entire composite sample. This is especially helpful when using single tube triers to avoid spillage or loss.

6. Label container of the composite sample with all pertinent information.



INSERT, SLOT DOWN



TURN and WITHDRAW
SLOT UP

FIGURE 3

BAG SAMPLING TECHNIQUE

7. Sort samples to the laboratory for preparation and analysis.

c.2 Bulk Fertilizers

The methods described herein are used for obtaining representative samples from a lot of fertilizers in bulk. These are applicable during transfer, in single or multi-compartmented trucks, in rail cars, in storage or 1 front-end loaders.

For purposes of obtaining an official sample, a lot shall be represented by an identifiable quantity of commercial fertilizer that can be sampled by herein described procedures, up to and including a freight car load of 45 tons maximum, or the amount contained in a single vehicle or delivered under a single invoice.

c.2.1 **Collection of Sample** – Collect the sample according to the following appropriate techniques.

c.2.1.1 **Material in Storage**

a. Sampling points for vertical cores from bulk storage piles are given in Figures 4a and 4b. Level or flat piles, containing up to 100 tons, are sampled in a fashion similar to that described for the ridged piles. Withdraw (ten cores to the maximum possible depth of the trier) from positions indicated in the diagram in Figure 4b.

b. A one-sided or sloped pile is sampled at the points shown in Figure 4b. Withdraw one vertical core of material from

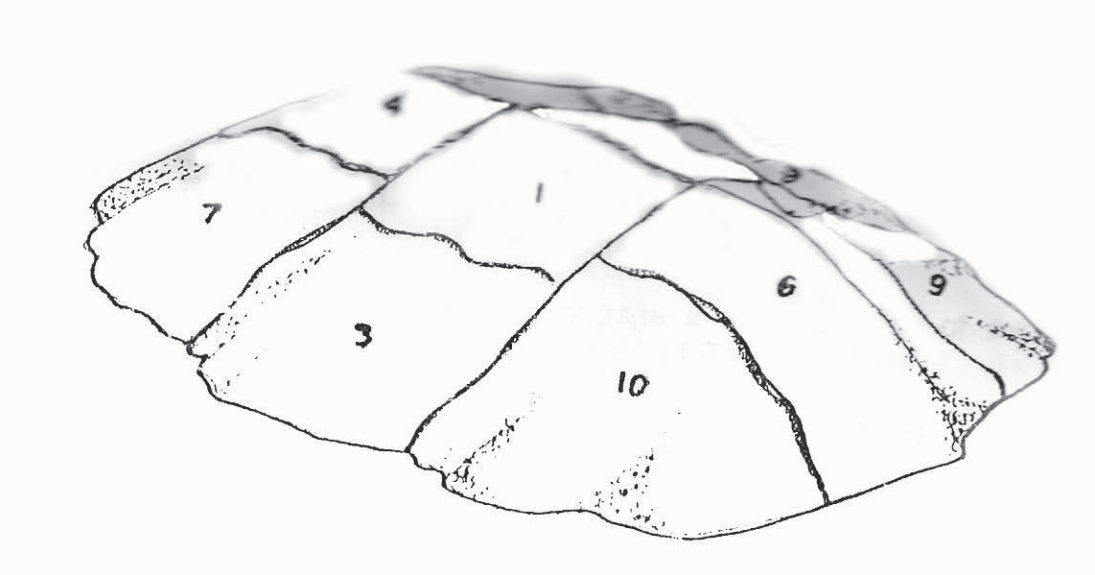
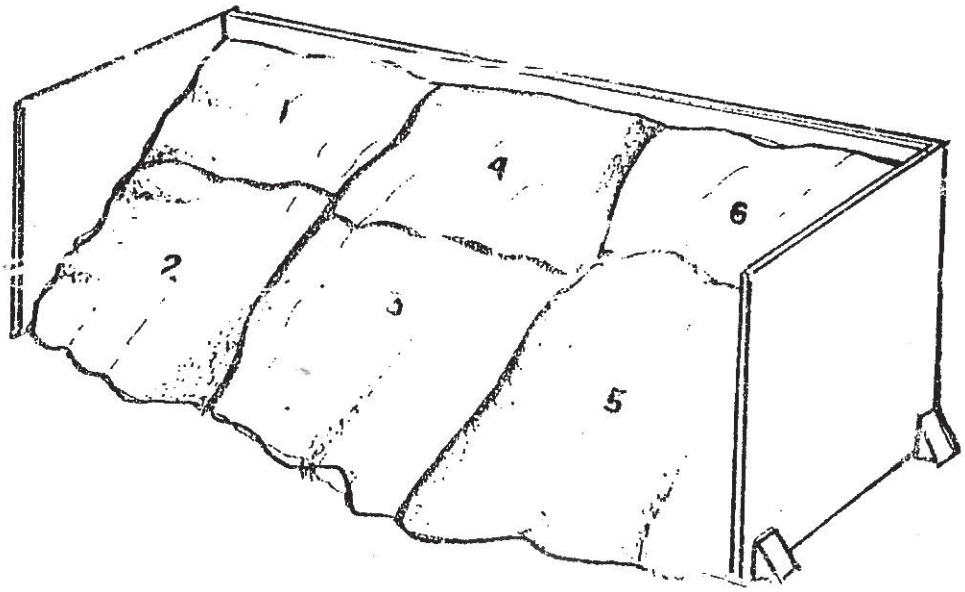


FIGURE 4A: SAMPLE PATTERN FOR RIDGED PILE



Withdraw one vertical core of material from Location 1 and 6, and two cores from locations 2, 3, 4 and 5.

FIGURE 4B: SAMPLE PATTERN FOR ONE-SIDED PILE

locations 1 and 6, and two cores at locations 2, 3, 4, and 5. These sampling patterns are designed so that cores taken from each location represent approximately equal fraction of the lot.

c.2.1.2 **Transfer Belt or Spout**

Take sample by passing the stream sampling cup as illustrated in Figure 5 completely through the stream of the material as it drops from a transfer belt or spout. The long slot in the top of the sampling cup should be perpendicular to the falling stream. Pass the cup through the complete stream at a uniform speed, such that the cup will collect approximately equal amount at each pass, but will never overflow. Empty content of the cup from each pass into a suitable container.

c.2.1.3 **Single Compartment Truck**

Sample the load by vertical probing procedure. Use one of the double tube triers listed under clause 2. Draw ten vertical cores according to the pattern shown in Figure 6a . Insert the grain probe or compartment trier vertically while closed, normally to a depth of not less than 120 cm (the depth

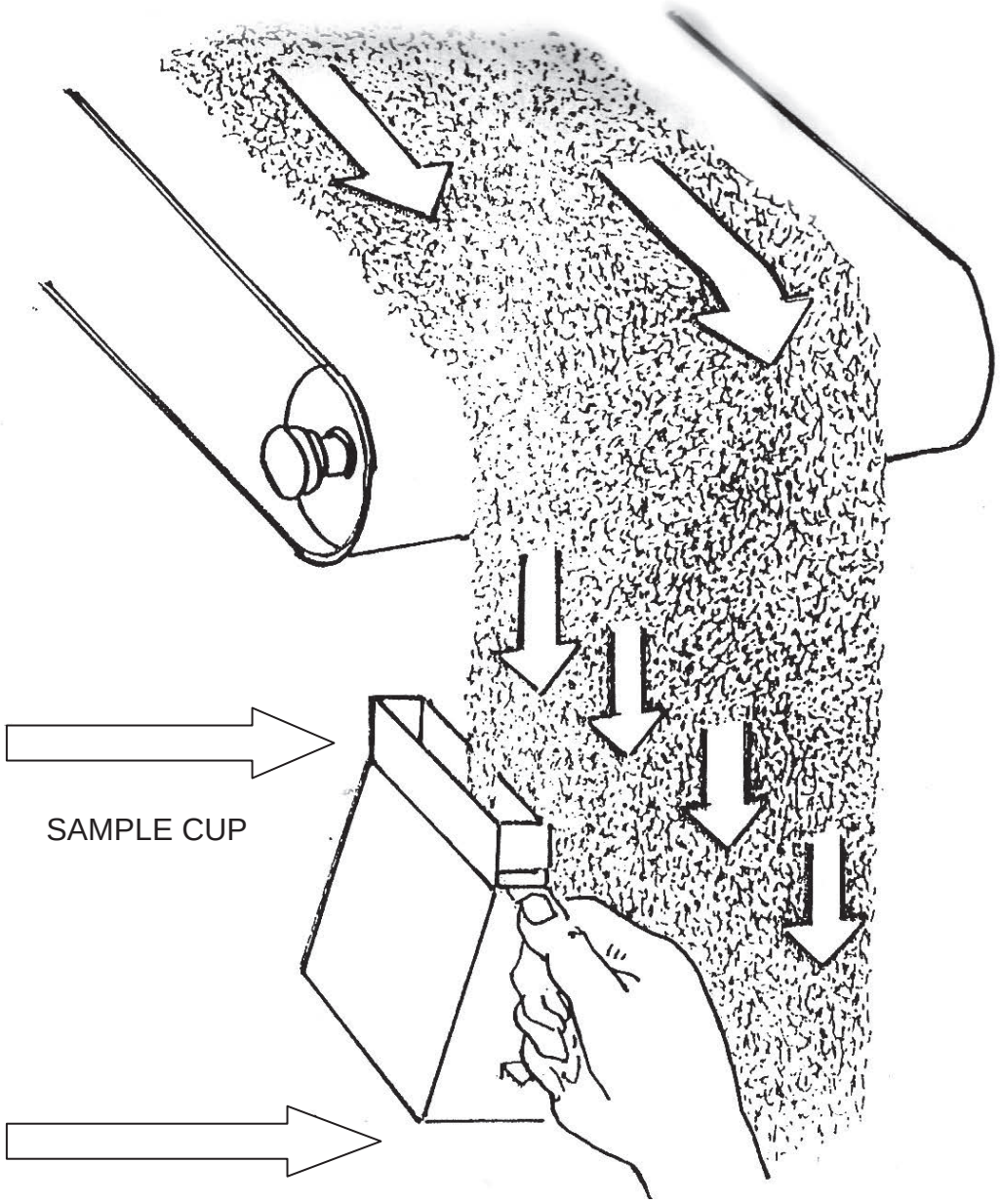


FIGURE 5

USE OF STREAM SAMPLING CUP FOR BELT SAMPLES

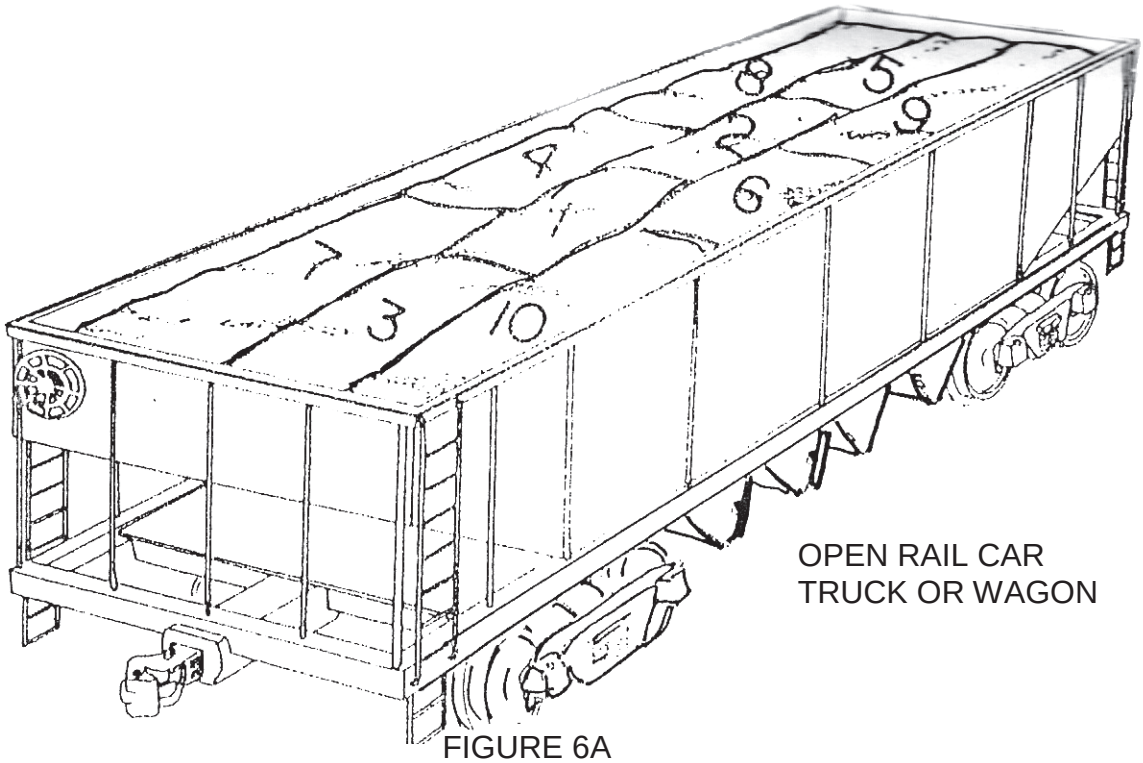
for some of the cores will be less if the side of the truck is sloped). Open the probe until it is filled. Close and withdraw.

c.2.1.4 **Multicompartmented Truck and Hopper Cars**

Sample the multi compartmented truck and hopper car after they are loaded for shipment, or upon receipt before unloading following the pattern given in Figure 6b for each compartment. Keep in mind that it is easy to take vertical cores before shipment and more difficult after the car or truck is received. Withdraw a minimum of ten vertical cores, inserting the probe in the positions indicated in the center of the core.

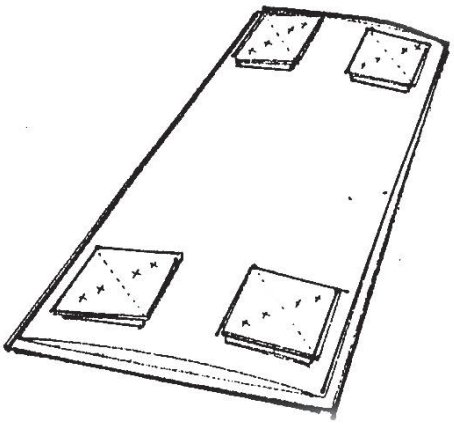
c.2.1.5 **Carloads**

a. Sample the material while loading or unloading the car by stream sampling as described previously. If it becomes necessary to sample the material in a box car, use the vertical probing technique as described for single compartment truck. If the pile of the material in a box car is cored or ridged, take cores from the positions indicated in Figure 4A, one at

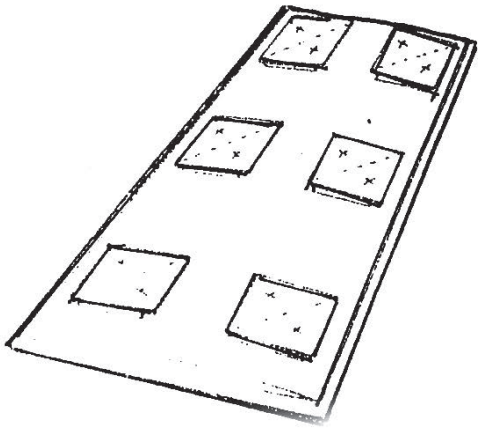


OPEN RAIL CAR
TRUCK OR WAGON

FIGURE 6A
AOAC SAMPLING PATTERN



PATTERN A
(3-4 HATCHES)
4 probes/hatch



PATTERN B
(MORE THAN 4 HATCHES)
2 probes/hatch

FIGURE 6B

SAMPLE POINTS FOR COVERED HOPPER CARS OR OTHER CARRIERS

each end, then duplicate the sampling pattern described in Figure 4b.

b. Use one of the tube triers and insert to a depth not less than 120 cm in each of the indicated sampling locations. The closed double-compartmented trier is inserted, opened, filled, closed and withdrawn.

d. **SUB SAMPLING BY MASS REDUCTION**

Samples received in the laboratory must be reduced in mass to 225-500 g pulverized, if necessary, reduced in mass again, and store in air-tight container. It is recommended that these procedures be carried out in a laboratory environment.

Annex 4.7

Food and Agriculture Organization (FAO) Specifications (Sample)

Specifications / standards

Specifications against which commercial products are judged for quality. Specifications of several fertilizers have been developed in different countries. If purchasing fertilizers from international and/or national markets, specifications have to be indicated. Prices of specific type of fertilizer may differ according to the required quality and specification.

Specifications for Commonly used Fertilizers (Word Document)

1. N, P and K Fertilizers

UREA (Free flowing)
UREA (Granular)
UREA (SUPER GRANULATED)
AMMONIUM PHOSPHATE SULPHATE (16-20-0)
AMMONIUM PHOSPHATE SULPHATE (20-20-0)
AMMONIUM PHOSPHATE SULPHATE NITRATE (20-20-0)
AMMONIUM PHOSPHATE SULPHATE (18-9-0)
NITRO PHOSPHATE (20-20-0)
UREA AMMONIUM PHOSPHATE (28-28-0)
UREA AMMONIUM PHOSPHATE (24-24-0)
UREA AMMONIUM PHOSPHATES (20-20-0
MONO AMMONIUM PHOSPHATE (11-52-0)
NITROPHOSPHATE (23-23-0)
AMMONIUM NITRATE PHOSPHATE (23-23-0)
AMMONIUM SULPHATE
CALCIUM AMMONIUM NITRATE (CAN)
SINGLE SUPERPHOSPHATE (SSP) (Powdered)
SINGLE SUPERPHOSPHATE (SSP) (Granular)
TRIPLE SUPERPHOSPHATE (TSP)
POTASSIUM CHLORIDE/MURIATE OF POTASH (MOP)
(Crystalline powder) POTASSIUM CHLORIDE/MURIATE OF POTASH (MOP), (Granular) POTASSIUM SULPHATE/SULPHATE OF POTASH (SOP)
DIAMMONIUM PHOSPHATE (DAP)
NPK COMPLEX 15-15-15

NPK COMPLEX 17-17-17
NPK COMPLEX 19-19-19
NITROPHOSPHATE WITH POTASH (15-15-15)
N.P.K. (10-26-26)
N.P.K. (12-32-16)
N.P.K. (22-22-11)
N.P.K. (14-35-14)
N.P.K. (17-17-17)
N.P.K. (14-28-14)
N.P.K. (19-19-19**)**

UREA (Free flowing)

- Moisture content by weight: **maximum** 1%
- Total nitrogen content by weight (on dry basis): **minimum** 46%
- Biuret content by weight: **maximum** 1.5%
- Particle size: Not less than 90% of the material shall pass through 2.8 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm IS sieve.
- Packing: Pack in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost.
- Each bag to guarantee minimum product weight (net) as specified on the bag.

UREA (Granular)

NOTE: Only when specially requested (for machine application) as it is slightly more expensive than free flowing Urea

- Moisture content by weight: **maximum** 1%
- Total nitrogen content by weight (on dry basis): **minimum** 46%.
- Biuret content by weight: **maximum** 1.5%
- Particle size: Not less than 90% of the material shall pass through 4 mm IS sieve and be retained on 2 mm IS sieve. Not more than 5% shall be below 1 mm IS sieve.
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost.
- Each bag to guarantee minimum product weight (net) as specified on the bag.

UREA (SUPER GRANULATED)

- Moisture, content by weight: **maximum** 1%
- Total nitrogen, content by weight (on dry basis), **minimum** 46%
- Biuret content by weight: **maximum** 1.5%
- Particle size: Not less than 90 percent of the material shall pass through 13.2 mm IS sieve and not less than 80 percent by weight shall be retained on 9.5 mm IS sieve.

AMMONIUM PHOSPHATE SULPHATE (16-20-0)

- Moisture content by weight: **maximum** 1%
- Total ammoniacal nitrogen content by weight, **minimum** 16.%
- Neutral ammonium citrate soluble phosphates (as P_2O_5) content by weight: **minimum** 20%
- Water soluble phosphates (as P_2O_5) content by weight, **minimum** 19.5%
- Particle size: Not less than 90 percent of the material shall pass through 4 mm IS sieve and shall be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.
- Sulphur (as S), content by weight, min. 11.%

AMMONIUM PHOSPHATE SULPHATE (20-20-0)

- Moisture content by weight: **maximum** 1%
- Total nitrogen content by weight: **minimum** 20%
- Ammoniacal nitrogen content by weight: **minimum** 18%
- Nitrogen in the form of urea content by weight: **maximum** 2%
- Neutral ammonium citrate soluble phosphates (as P_2O_5 content by weight: **minimum** 20%
- Water soluble phosphates (as P_2O_5) content by weight: **minimum** 17%
- Particle size: Not less than 90 percent of the material shall pass through4 mm IS sieve and shall be retained on 1 mm IS sieve. Not more than 5 per cent shall be below 1 mm IS sieve.
- Sulphur (as S), content by weight: **minimum** 13%

AMMONIUM PHOSPHATE SULPHATE NITRATE (20-20-0)

- Moisture content by weight: **maximum** 1.5%

- Total nitrogen content by weight: **minimum** 20%
- Ammoniacal nitrogen content by weight: **minimum** 17%
- Nitrate nitrogen content by weight, **maximum** 3%
- Neutral ammonium citrate soluble phosphates (as P_2O_5) content by weight, **minimum** 20%
- Water soluble phosphates (as P_2O_5) per cent by weight, **minimum** 17%
- Particle size-90 percent of the material shall pass through 4 mm IS sieve and shall be retained on 1 mm IS sieve. Not more than 5 per cent shall be below 1 mm IS sieve.
- Sulphur (as S), content by weight: **minimum** 13%

AMMONIUM PHOSPHATE SULPHATE (18-9-0)

- Moisture content by weight: **maximum** 1%
- Ammoniacal nitrogen content by weight: **minimum** 18%
- Neutral ammonium citrate soluble phosphates (as P_2O_5) content by weight: **minimum** 9%
- Water soluble phosphates (as P_2O_5) percent by weight: minimum 8.5%
- Particle size: 90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

NITRO PHOSPHATE (20-20-0)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 20%
- Nitrogen in ammoniacal form content by weight, **minimum** 10%
- Nitrogen in nitrate form content by weight, **maximum** 10%
- Neutral ammonium citrate soluble phosphates (as P_2O_5) percent by weight: **minimum** 20%
- Water soluble phosphates (as P_2O_5) percent by weight: **minimum** 12%
- Calcium nitrate, content by weight: **maximum** 1%
- Particle size: Not less than 90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

UREA AMMONIUM PHOSPHATE (28-28-0)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 28%
- Ammoniacal nitrogen content by weight: **minimum** 9%
- Neutral ammonium citrate soluble phosphate (as P_2O_5) content by weight: **minimum** 28%
- Water soluble phosphates (as P_2O_5) content by weight, **minimum** 25.2%
- Particle size: Not less than 90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

UREA AMMONIUM PHOSPHATE (24-24-0)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight, **minimum** 24%
- Ammoniacal nitrogen content by weight: **minimum** 7.5%
- Nitrogen in the form of urea content by weight: **maximum** 16.5%
- Neutral ammonium citrate soluble phosphates (as P_2O_5) content by weight: **minimum** 24%
- Water soluble phosphates (as P_2O_5) content by weight: **minimum** 20.4%
- Particle size: Not less than 90 content of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

UREA AMMONIUM PHOSPHATES (20-20-0)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 20%
- Ammoniacal nitrogen content by weight: **minimum** 6.4%
- Neutral ammoniacal citrate soluble phosphates (as P_2O_5) content by weight: **minimum** 20%
- Water soluble phosphates (as P_2O_5) content by weight: **minimum** 17%
- Particle size: 90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

(Note: This product contains filler material (inert soil) to the extent of 30 % by weight)

MONO AMMONIUM PHOSPHATE (11-52-0)

- Moisture content by weight: **maximum** 1%
- Total nitrogen all in ammoniacal form content by weight: **minimum** 11%
- Neutral ammonium citrate soluble phosphates (as P_2O_5) content by weight: **minimum** 52%
- Water soluble phosphates (as P_2O_5) content by weight: **minimum** 44.2%
- Particle size-90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve

NITROPHOSPHATE (23-23-0)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 23%
- Nitrogen in ammoniacal form content by weight: **minimum** 11.5%
- Nitrogen in nitrate form content by weight: **maximum** 11.5%
- Neutral ammonium citrate soluble phosphates (as P_2O_5) content by weight: **minimum** 23%
- Water soluble phosphates (as P_2O_5) content by weight: **minimum** 18.5%
- Calcium nitrate, content by weight: **maximum** 1.0%
- Particle size-90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve

AMMONIUM NITRATE PHOSPHATE (23-23-0)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 23%
- Nitrogen in ammoniacal form content by weight: **minimum** 13%
- Nitrogen in nitrate form content by weight: **maximum** 10%
- Neutral ammonium citrate soluble phosphate (as P_2O_5) content by weight: **minimum** 23%
- Water soluble phosphates (as P_2O_5`) percent by weight: **minimum** 20.5%

- Particle size- 90 per content of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

AMMONIUM SULPHATE

- Moisture content by weight: **maximum** 1%
- Total nitrogen content by weight (on dry basis): **minimum** 20%
- Free acidity (as H_2SO_4) by weight: **maximum** 0.025%
- Sulphur (as S) by weight: **minimum** 23%
- Particle size: Not less than 90% of the material shall pass through 2.8 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm IS sieve.
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost.
- Each bag to guarantee minimum product weight (net) as specified on the bag.

CALCIUM AMMONIUM NITRATE (CAN)

- Moisture content by weight: **maximum** 1%
- Total nitrogen content by weight (on dry basis): 26%
- Ammoniacal nitrogen by weight: 50% of total nitrogen
- Nitrate nitrogen by weight: 50% of total nitrogen
- Calcium and/or magnesium carbonate by weight: **minimum** 18%
- Particle size: Not less than 90% of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm IS sieve.
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost.
- Each bag to guarantee minimum product weight (net) as specified on the bag.

SINGLE SUPERPHOSPHATE (SSP) (Powdered)

- Moisture content by weight: **maximum** 12%
- Free phosphoric acid (as P_2O_5) by weight: **maximum** 4%
- Water soluble phosphate (as P_2O_5) by weight: **minimum** 15.8%
- Sulphur (as S) by weight: **minimum** 11%

- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost
- Each bag to guarantee minimum product weight (net) as specified on the bag

SINGLE SUPERPHOSPHATE (SSP) (Granular)
NOTE: Price may be slightly higher than powdered material. Quotations may be asked for both types and decision to be taken based on availability and price.

- Moisture content by weight: **maximum** 5%
- Free phosphoric acid (as P_2O_5) by weight: **maximum** 4%
- Water soluble phosphate (as P_2O_5) by weight: **minimum** 15.8%
- Sulphur (as S) by weight: **minimum** 11%
- Particle size: Not less than 90% of the material shall pass through 4 mm IS sieve and shall be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost
- Each bag to guarantee minimum product weight (net) as specified on the bag

TRIPLE SUPERPHOSPHATE (TSP)

- Moisture content by weight: **maximum** 5%
- Free phosphoric acid (as P_2O_5) by weight: **maximum** 3%
- Total phosphates (as P_2O_5) by weight: **minimum** 46%
- Water soluble phosphate (as P_2O_5) by weight: **minimum** 42.5%
- Particle size: Not less than 90% of the material shall pass through 4 mm IS sieve and shall be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost.
- Each bag to guarantee minimum product weight (net) as specified on the bag

POTASSIUM CHLORIDE/MURIATE OF POTASH (MOP) (Crystalline powder)

- Moisture content by weight: **maximum** 0.5%
- Water soluble potash content (as K_2O) by weight: **minimum** 60%
- Sodium (as NaCl) by weight: **maximum** 3.5%
- Particle size: Not less than 65 % of the material shall pass through 1.7 mm IS sieve and be retained on 0.25 mm IS sieve
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost
- Each bag to guarantee minimum product weight (net) as specified on the bag.

POTASSIUM CHLORIDE/MURIATE OF POTASH (MOP) (Granular)

- Moisture content by weight: **maximum** 0.5%
- Water soluble potash content (as K_2O) by weight: **minimum** 60%
- Sodium (as NaCl) by weight: **maximum** 3.5%
- Magnesium (as MgC_{l2}) by weight: **maximum** 1%
- Particle size: Not less than 90% of the material shall pass through 3.35 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5% should be below 1 mm size.
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost
- Each bag to guarantee minimum product weight (net) as specified on the bag.

POTASSIUM SULPHATE/SULPHATE OF POTASH (SOP)

- Moisture content by weight: **maximum** 1.5%
- Potash content (as K_2O) by weight: **minimum** 50%
- Total chlorides (as Cl) by weight: **maximum** 2.5%
- Sodium (as NaCl) by weight: **maximum** 2%
- Sulphur (as S) by weight: **minimum** 17.5%
- Particle size: Not less than 65 % of the material shall pass through 1.7 mm IS sieve and be retained on 0.25 mm IS sieve.
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost.

- Each bag to guarantee minimum product weight (net) as specified on the bag.

DIAMMONIUM PHOSPHATE (DAP)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight (on dry basis): **minimum** 18%
- Neutral ammonium citrate soluble phosphate (as P_2O_5) content by weight: **minimum** 46%
- Water soluble phosphate (as P_2O_5) content by weight: **minimum** 41%
- Particle size: Not less than 90% of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm size
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost.
- Each bag to guarantee minimum product weight (net) as specified on the bag.

NPK COMPLEX 15-15-15

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight (on dry basis): **minimum** 15%
- Neutral ammonium citrate soluble phosphate (as P_2O_5) content by weight: **minimum** 15%
- Water soluble phosphate (as P_2O_5) content by weight: **minimum** 12%
- Water soluble potash (as K_2O) content by weight: **minimum** 15%
- Particle size: Not less than 90% of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm size
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost
- Each bag to guarantee minimum product weight (net) as specified on the bag.

NPK COMPLEX 17-17-17

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight (on dry basis): **minimum** 17%

- Neutral ammonium citrate soluble phosphate (as P_2O_5) content by weight: **minimum** 17%
- Water soluble phosphate (as P_2O_5) content by weight: **minimum** 13.6%
- Water soluble potash (as K_2O) content by weight: **minimum** 17%
- Particle size: Not less than 90% of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm size
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost
- Each bag to guarantee minimum product weight (net) as specified on the bag.

NPK COMPLEX 19-19-19

NOTE: All other NPK complex grades will follow the same rule, particularly water soluble phosphate content should be 85% (minimum) of the neutral ammonium citrate soluble phosphate content

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight (on dry basis): **minimum** 19%
- Neutral ammonium citrate soluble phosphate (as P_2O_5) content by weight: **minimum** 19%
- Water soluble phosphate (as P_2O_5) content by weight: **minimum** 15.2%
- Water soluble potash (as K_2O) content by weight: **minimum** 19%
- Particle size: Not less than 90% of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5% shall be below 1 mm size
- Packing: Packed in 50 kg (dry) capacity woven polypropylene bags with polyethylene inner lining. 4% empty bags to be supplied at no extra cost.
- Each bag to guarantee minimum product weight (net) as specified on the bag.

NITROPHOSPHATE WITH POTASH (15-15-15)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen, **minimum** 15%
- Ammoniacal nitrogen content by weight: **minimum** 7.5%
- Nitrate nitrogen content by weight: **maximum** 7.5%

- Neutral ammonium citrate soluble phosphates (as P_2O_5) content by weight: **minimum** 15%
- Water soluble phosphates (as P_2O_5) content by weight: **minimum** 4%
- Water soluble potash (as K_2O) content by weight minimum 15%
- Particle size: Not less than 90 percent of the material shall pass through4 mm IS sieve and be retained on 1 mm IS sieve
- Calcium nitrate, content by weight: **maximum** 1%

N.P.K. (10-26-26)

- Moisture content by weight: **maximum** 1.0%
- Total nitrogen content by weight: **minimum** 10%
- Ammoniacal nitrogen content by weight: **minimum** 7%
- Nitrogen in the form of urea content by weight: **maximum** 3%
- Neutral ammonium citrate soluble phosphate (as P_2O_5) content by weight: **minimum** 26%
- Water soluble potash (as K_2O) content by weight: **minimum** 26%
- Water soluble phosphate (as P_2O_5) content by weight: **minimum** 22.1%
- Particle size: Particle size of the material will be such that 90 percent of the material will be between 1 mm and 4mm IS sieve and not more than 5 percent will be below 1 mm size.

N.P.K. (12-32-16)

- Moisture content by weight: **maximum** 1%
- Total nitrogen content by weight: **minimum** 12%
- Ammoniacal nitrogen content by weight: **minimum** 9%
- Nitrogen in the form of urea content by weight: **maximum** 3%
- Neutral ammonium citrate soluble phosphate (as P_2O_5) content by weight: **minimum** 32
- Water soluble potash (as K_2O) content by weight: **minimum** 27.2%
- Water soluble phosphate (as P_2O_5) percent by weight: **minimum** 16%
- Particle size: Particle size of the material will be such that 90 percent of the material will be between 1 mm

and 4 mm IS sieve and not more than 5 percent will be below 1 mm size.

N.P.K. 22-22-11

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 22%
- Ammoniacal nitrogen content by weight: **minimum** 7%
- Urea nitrogen percent by weight: **maximum** 15%
- Neutral ammonium citrate soluble phosphate (as $P_2 0_5$) content by weight: **minimum** 22%
- Water soluble potash (as K_2O) content by weight: **minimum** 11%
- Water soluble phosphate (as $P_2 0_5$) content by weight: **minimum** 18.7%
- Particle size: Not less than 90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

N.P.K. (14-35-14)

- Moisture percent by weight: **maximum** 1%
- Nitrogen in ammoniacal form percent by weight: **minimum** 14%
- Neutral ammonium citrate soluble phosphates (as $P_2 0_5$) percent by weight: **minimum** 35%
- Water soluble potash (as K_2O) percent by weight: **minimum** 14%
- Water soluble phosphate (as P_2O_5) per cent by weight: **minimum** 29.7%
- Particle size: 90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

N.P.K. (17-17-17)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 17%
- Ammoniacal nitrogen content by weight: **minimum** 5%
- Urea nitrogen content by weight: **maximum** 12%
- Neutral ammonium citrate soluble phosphate (as $P_2 0_5$) content by weight: **minimum** 17%

- Water soluble potash (as K_2O) content by weight: **minimum** 17%
- Water soluble phosphate (as P_20_5) percent by weight: **minimum** 14.5%
- Particle size: 90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

N.P.K. (14-28-14)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 14%
- Urea nitrogen content by weight: **maximum** 6%
- Ammoniacal nitrogen content by weight: minimum 8%
- Neutral ammonium citrate soluble phosphate (as P_20_5) content by weight: **minimum** 28%
- Water soluble potash (as K_2O) content by weight: **minimum** 14%
- Water soluble phosphate (as P_20_5) content by weight: **minimum** 23.8%
- Particle size: Not less than 90 percent of the material shall pass through 4mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1 mm IS sieve.

N.P.K. (19-19-19)

- Moisture content by weight: **maximum** 1.5%
- Total nitrogen content by weight: **minimum** 19%
- Ammoniacal nitrogen content by weight: **minimum** 5.6%
- Urea nitrogen content by weight: **maximum** 13.4%
- Neutral ammonium citrate soluble phosphate (as P_20_5) content by weight: **minimum** 19%
- Water soluble potash (as K_2O) content by weight, **minimum** 16.2%
- Water soluble phosphate (as P_20_5) content by weight: **minimum** 19%
- Particle size: Not less than 90 percent of the material shall pass through 4 mm IS sieve and be retained on 1 mm IS sieve. Not more than 5 percent shall be below 1mm IS sieve.

2. Micronutrient Fertilizers

ZINC SULPHATE
ZINC SULPHATE MONO-HYDRATE ($ZnSO_4$ H_2O)
CHELATED Zn, AS Zn-EDTA
CHELATED IRON, AS Fe-EDTA
MANGANESE SULPHATE
BORAX (SODIUM TETRABORATE)
COPPER SULPHATE
FERROUS SULPHATE
AMMONIUM MOLYBDATE
SOLUBOR ($Na_2B_4O_{7*5}H_20+N_{a2}B_{10}0_{16*}10H_20$) for foliar spray.
MAGNESIUM SULPHATE

ZINC SULPHATE

- Zinc (as Zn) content by weight: **minimum** 21%
- Sulphur (as S) content by weight: **minimum** 10%
- Lead (as Pb) content by weight: **maximum** 003%
- Copper (as Cu) content by weight: **maximum** 1%
- Magnesium (as Mg) content by weight: **maximum** 5%
- Cadmium (as Cd) content by weight: **maximum** 0.0025%
- Arsenic (as As) content by weight: **maximum** 0.01%
- Matter insoluble in water by weight: **maximum** 1%
- pH: not less than 4%
- Form: free flowing powder

ZINC SULPHATE MONO-HYDRATE ($ZnSO_4$ H_2O)

- Free flowing powder form
- Matter-insoluble in water, content by weight: **maximum** 1%
- Zinc (as Zn). content by weight: **minimum** 33%
- Lead (as Pb), content by weight: **maximum** 0.003%
- Copper (as Cu), content by weight: **maximum** 0.1%
- Magnesium (as Mg), content by weight, **maximum** 0.5%
- Iron (as Fe), content by weight: **maximum** 0.5%
- pH not less than 4.0%
- Cadmium (as Cd), content by weight: **minimum** 0.0025%
- Arsenic (as As), content by weight: **minimum** 0.01%

CHELATED Zn, AS Zn-EDTA

- Zinc content (expressed as Zn) by weight in the form of Zn-EDTA complex: **minimum** 12%

- Lead (as Pb) content by weight: **maximum** 0.003%
- pH: 6.0 – 6.5 %
- Form: free flowing crystalline/powder

CHELATED IRON AS Fe-EDTA

- Appearance – Free flowing crystalline/powder
- Iron contents (expressed as Fe), by weight in the form of Fe-EDTA **minimum** 12%
- Lead (as Pb) content by weight: maximum 0.003%
- pH 5.5 -6.5%

MANGANASE SULPHATE

- Manganese (as Mn) content by weight: **minimum** 30.5%
- Sulphur (as S) content by weight: **minimum** 17%
- Lead (as Pb) content by weight: **maximum** 0.003%
- Copper (as Cu) content by weight: **maximum** 0.1%
- Magnesium (as Mg) content by weight: **maximum** 2%
- Matter insoluble in water by weight: **maximum** 1%·
- pH: not less than 3.75%
- Form: free flowing powder

BORAX (SODIUM TETRABORATE)

- Boron (as B) content by weight: **minimum** 10.5%
- Lead (as Pb) content by weight: **maximum** 0.003%
- Matter insoluble in water by weight: **maximum** 1%
- pH: 9.0-9.5% Form: free flowing powder

COPPER SULPHATE

- Copper (as Cu) content by weight: **minimum** 24%
- Sulphur (as S) content by weight: **minimum** 12%
- Soluble iron and aluminium compounds (expressed as Fe) content by weight: **maximum** 0.5%
- Lead (as Pb) content by weight: **maximum** 0.003%
- Matter insoluble in water by weight: **maximum** 1%
- pH: not less than 3%
- Form: free flowing powder/granular

FERROUS SULPHATE

- Ferrous iron (as Fe) content by weight: **minimum** 19%
- Sulphur (as S) content by weight: **minimum** 10.5%

- Free acid (as H_2SO_4) content by weight: **maximum** 1%
- Ferric iron (as Fe) content by weight: **maximum** 0.5%
- Lead (as Pb) content by weight: **maximum** 0.003%
- Matter insoluble in water by weight: **maximum** 1%
- pH: not less than 3.5%
- Form: free flowing powder

AMMONIUM MOLYBDATE

- Molybdenum (as Mo) content by weight: **minimum** 52%
- Lead (as Pb) content by weight: **maximum** 0.003%
- Matter insoluble in water by weight: **maximum** 1%
- pH: 5.0-5.5%
- Form: free flowing crystalline/powder

SOLUBOR ($Na_2B_4O_{7*5}H_20 + N_{a2}B_{10}0_{16*}10H_20$) for foliar spray

- Content of Boron (as B) content by weight: **minimum** 19%
- Matter insoluble in water content by weight: **maximum** 1%
- Lead (as Pb) content by weight: **maximum** 0.003%

MAGNESIUM SULPHATE

- Free flowing -crystalline form
- Matter insoluble in water, content by weight: **maximum** 1%
- Magnesium (as Mg), content by weight: **minimum** 9.6%
- Lead (as Pb), content by weight: **maximum** 0.003
- pH (5% solution) 5.0-8.0%
- Sulphur (as S),content by weight: **minimum** 12%

3. Rock Phosphate (RP) / Phosphate Rock (PR) for direct application

- Total phosphates (as P_2O_5) content by weight: between 15-35% depending on source
- Cadmium (as Cd) content by weight: **maximum** 27 mg/kg of RP
- Particle size: Not less than 90% of the material shall pass through 0.15 mm IS sieve and the balance shall pass through 0.25 mm IS sieve.

4. Organic Manures

Quality of organic manures vary widely, depending on the materials used. However, basic criteria to consider suitability of the material as a nutrient source are:

- Organic matter content by weight: **minimum** 30%
- Organic carbon content by weight: **minimum** 12%
- Total nutrients (N+ P_2O_5+ K_2O) content by weight: **minimum** 5%

Subject to doubt and availability of analytical facilities, contents of following heavy metals should be checked:

- Arsenic (As) content by weight: **maximum** 10 mg/kg
- Cadmium (Cd) content by weight: **maximum** 5 mg/kg
- Cromium (Cr) content by weight: **maximum** 50 mg/kg
- Copper (Cu) content by weight: **maximum** 300 mg/kg
- Lead (Pb) content by weight: **maximum** 100 mg/kg

Annex 5.1
FPW NO. 1

FIELD FERTILIZER PRICE REPORT

Period Covered: _____

Region: _____

RETAIL PRICE (P/50 kg. bag)							
PROVINCE	PRODUCT NAME						REMARKS[a]

Prepared by:

_____
Print Name & Signature

[a] Remarks should explain substantially why prices of certain fertilizer/s increase or decrease in price.

Annex 5.2
FPW NO. 2

COMPANY FERTILIZER PRICE REPORT

Period Covered: _____

Region: _____

EX-WAREHOUSE PRICE (P/50 kg. bag)							
COMPANY	PRODUCT NAME						REMARKS[a]
	UREA	21-0-0	14-14-14	16-20-0	0-0-60	18-46-0	

Prepared by:

_____
Print Name & Signature

[a] Remarks should explain substantially why prices on certain fertilizer/s increase or decrease in price.

Annex 5.3
FPW NO. 3

ORGANIC FERTILIZER PRICE (FIELD) REPORT

Period covered: _____

Region: _____

EX-WAREHOUSE PRICE (P/50 kg. bag)							
PROVINCE	PRODUCT NAME						REMARKS[a]

Prepared by:

_____
Print Name & Signature

[a] Remarks should explain substantially why prices on certain fertilizer/s increase or decrease in price.

Annex 5.4
FPW NO. 4

ORGANIC FERTILIZER PRICE (COMPANY) REPORT

Period Covered: _____

Region: _____

EX-WAREHOUSE PRICE (P/50 kg. bag)							
PROVINCE	PRODUCT NAME						REMARKS[a]

Prepared by:

_____
Print Name & Signature

[a] Remarks should explain substantially why prices on certain fertilizer/s increase or decrease in price.

Annex 5.5
FPW NO. 5

MONTHLY REPORT ON FERTILIZER STOCKS, SALES AND PRICES
Period Covered _____

FERTILIZER GRADE	ENDING INVENTORY LAST MONTH	PURCHASE THIS MONTH		TOTAL STOCKS	SALES (No. of bags)		ENDING INVENTORY THIS MONTH	AVERAGE PRICE (P)
		Within	Outside		Within	Outside		
UREA (46-0-0)								
AMMOSUL (21-0-0)								
COMPLETE (14-14-14)								
AMMOPHOS (16-20-0)								
POTASH (0-0-60)								
DAP (18-46-0)								
NK (17-0-17)								
ORGANIC								
16-16-16								
TOTAL								

Prepared by:

_____

Submitted by:

_____

References

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5. The Fertilizer Control Order. Fifth Edition, The Fertilizer Association Of India, New Delhi. 1995.

6. Training Manual For Trainers Of Good Agricultural Practices (GAP). Bureau of Agriculture and Fisheries Product Standards (BAFPS). 2006.

FERTILIZER AND PESTICIDE AUTHORITY
(FPA)
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