

# Washington State Department of Agriculture

# Fertilizer Registration Guidance Document

Pesticide Management Division Registration Services PO Box 42589 Olympia WA 98504-2589

Telephone: (360)902-2025 Fax: (360)902-2093 E-mail: <u>fertreg@agr.wa.gov</u>

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Inquiries regarding availability of this publication in alternative formats should be directed to the WSDA at (360) 902-1976 or Telecommunications Device for the Deaf (TDD) (800) 833-6388

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# **Commercial Fertilizer Registration in Washington State**

All fertilizer products distributed in Washington must first be registered with the Washington State Department of Agriculture (WSDA), Pesticide Management Division. This Fertilizer Registration Guidance Document provides information pertaining to heavy metals test requirements, specific labeling requirements, review of micronutrient and waste-derived fertilizers by the Washington State Department of Ecology, and related information.

# **Key Registration Points**

**Registration Cycle:** All fertilizer registrations in Washington State are on a two-year cycle. For example, the 2015-2017 cycle starts on July 1, 2015 and expires on June 30, 2017.

**Application Fee:** \$150 per product

**Registration Timeline:** WSDA's goal is 60 days from receipt of a **complete** application, or 90 days for waste-derived and micronutrient products which require a Department of Ecology review.

**Complete Application:** Use the checklist on the back of form <u>4300A</u> to ensure a complete submission. **An incomplete application will delay your registration.** 

Once your product is registered: WSDA will issue a current registration certificate via email listing your registered products and a unique WSDA company number (different from your UBI number). Your company number will stay the same for as long as you do business with WSDA. Please contact WSDA if you find any errors on your certificate.

WSDA posts application information, including the metals data for your product(s) on the publically accessible fertilizer product database <a href="https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/product-database">https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/product-database</a>

Prior to the expiration date of your product registration, you will receive a product renewal application. **WSDA sends the renewal application to the email address listed in the fertilizer product database.** Make sure to notify WSDA if your company has a change of contact information.

# **Globally Harmonized System (GHS)**

GHS is the Globally Harmonized System of Classification and Labeling of Chemicals developed to promote a universal standard for hazard communication. In May 2012, the U.S. Occupational Safety and Health Administration (OSHA) aligned its existing Hazard Communication Standard (HSC) with GHS. The rule change makes major changes to the HSC, including new labeling requirements that chemical manufacturers and importers must make by June 1, 2015 (distributors have until December 1, 2015 to ship products labeled under the former labeling system).

If your fertilizer is intended to be distributed to the commercial market (including agriculture, nursery, greenhouse, or professionally managed turf and landscapes), your product is subject to GHS and the label must follow the Safety Data Sheet (SDS) and must use the applicable label elements, including hazard pictogram, signal words and hazard statements from your SDS. (For example, "Causes skin irritation.") The hazard statement found on the SDS should be the same one used on the label. Please provide WSDA with a copy of your product's SDS with your application. Information about GHS is

available from Occupational Safety and Health Administration (OSHA) at. <a href="https://www.osha.gov/hazcom/faq">https://www.osha.gov/hazcom/faq</a>

# **NEW! Grade Statements Policy**

The grade for a commercial fertilizer is the percentage of Total Nitrogen-Available Phosphate-Soluble Potash (N-P-K) that is guaranteed to be in the product. In order to comply with Washington State law (chapter 15.54 RCW) and promote labels that would be accepted in all states, WSDA will no longer allow labels and labeling that have extensions on the grade statement. These extensions were normally for secondary or micronutrients and added to the end of the grade with "+", such as in "Blue Bird Lawn Food 10-0-6+3Fe". The secondary or micronutrient content may still be a part of the product/brand name but not the grade. WSDA prefers the additional nutrients to be associated with the product/brand name instead of the grade and the grade to be on a separate line. For products where the grade was the product name (21-0-0+24S), WSDA recommends that you move the "+24S" to the next line and replace the "+" with the word "plus", "with", or "including". It would now read as:

21-0-0 with 24% Sulfur

Example grade statements with product/brand names are shown in the table below.

Acceptable Grade Statements with product/brand name	NOT Acceptable Grade Statements with product/brand name
*Blue Bird Super Fertilizer with 3% Sulfur 5-4-4	Blue Bird Super Fertilizer 5-4-4-3
*Blue Bird Super Fertilizer 5-4-4 with 3% Sulfur	Blue Bird Super Fertilizer 5-4-4-3S
*Blue Bird Super Fertilizer with 3% Sulfur 5-4-4	Blue Bird Super Fertilizer 5-4-4+3S
*Blue Bird Super Fertilizer with 3% S 5-4-4	Blue Bird Super Fertilizer 5-4-4+3% S
Blue Bird Super Fertilizer 5-4-4 with 3% Sulfur	Blue Bird Super Fertilizer 5-4-4+3% Sulfur
Blue Bird Super Fertilizer 5-4-4 including 3% Sulfur	Blue Bird Super Fertilizer 5-4-4+ Sulfur 3%
Blue Bird Super Fertilizer 5-4-4 plus 3% Sulfur	
Blue Bird Super Fertilizer 5-4-4 plus 3% S	*Format preferred by WSDA

WSDA realizes this may be a burden on industry, so we are implementing the following phase out period.

- January 1, 2016 all new fertilizer registrations and all revised labels must only have N-P-K (if required) as the grade statement.
- July 1, 2017 all labels shall have the new format of only N-P-K as the grade statement.
- When submitting revised labels, WSDA will not consider it a new product (and therefore not subject to new registration fees) if the only thing changing about the product is the adherence to the new format.
  - o Blue Bird Super Fertilizer 5-4-4+3S to Blue Bird Super Fertilizer with 3% Sulfur 5-4-4
    - is NOT a new product
  - Blue Bird Super Fertilizer 5-4-4+3S to Blue Bird Excellent Fertilizer with 3% Sulfur 5-4-4
    - IS a new product

# **Heavy Metals Information**

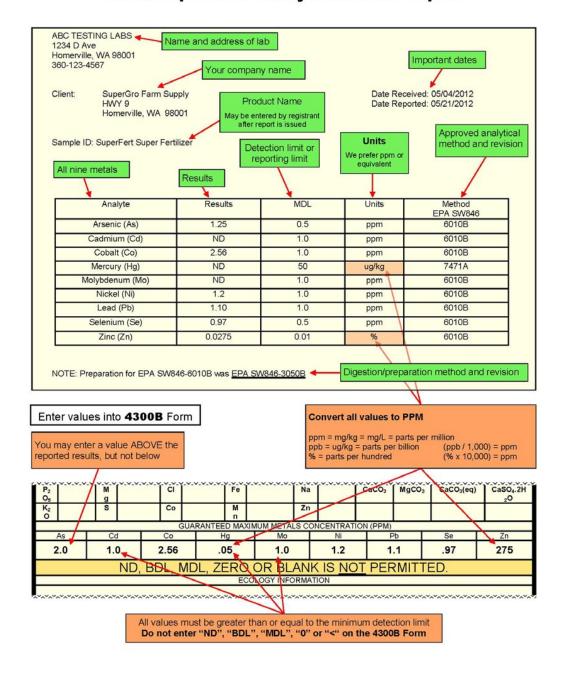
- 1. The metals data reported on the product registration form (4300B) are used to determine if the product meets the Washington State standard for annual metals addition to soil. The metals concentrations listed in the application must accurately represent what is in the product. You may report a higher value than that found by the laboratory but not a lower value.
  - The values of metals found must be reported in parts per million (ppm). You must convert parts per billion (ppb) to parts per million (ppm) if the results are reported by the lab in ppb.
- 2. Products found out of compliance are subject to stop sale or withdrawal from distribution. You may state metals values higher than the analyzed results to allow for variations in product heavy metals content.
- 3. The metals data you provide is posted on the WSDA internet site once the product is registered. For information on Washington's heavy metals standards see <u>WAC 16-200-7063</u> and <u>7064</u>.
- 4. If your product is a repack of a waste-derived fertilizer that has already been reviewed by Ecology, there is no need for any further Ecology testing. Submit the Ecology Questionnaire and indicate that it is a repack and list the repack information (product name and WSDA product number) on page two.
- 5. Ensure your product will meet Washington State Heavy Metals Standard by using the WSDA Metals Calculator before sending in your application.
- 6. Heavy Metals Analysis Exemption: If your product meets any of the three exemptions listed below, you do not need to perform a metals analysis:
  - A. Anhydrous ammonia or products derived solely from anhydrous ammonia dissolved in water (unless waste derived). OR
  - B. Customer formula mix, OR
  - C. If ALL of the following apply:
    - 1. You are repackaging a **single** chemical compound (i.e. urea, MAP, DAP, muriate of potash or similar products.); AND,
    - 2. the single chemical compound is already registered in Washington; AND,
    - 3. you do not amend or blend the product with any additional materials.

You will be required to list each of your suppliers and their product registration numbers.

More information on the Heavy Metals Analysis Exemption can be found at RCW 15.54.325 (1) (q).

# **Example 1: Metals on Lab Report and 4300B**

#### **Items required on Heavy Metals Lab Report**





# **WSDA HEAVY METALS TEST REQUIREMENTS**

# SUBMIT THIS GUIDE WITH YOUR SAMPLE TO YOUR LAB!

#### Note to Registrant:

- 1. Washington State heavy metals calculations are rate based, not concentration based. As a result, some products require a lower detection limit and/or application limits on the label.
  - If you have a nutrient with a high percentage in the Guaranteed Analysis (GA), you may be able to have higher detection limits.
  - If all of the nutrients have a low percentage in the GA, you must test with lower detection limits. Low nutrients are common in organic based fertilizers and products specifically designed for Hydroponic and Continuous Liquid Feed.
  - To see if your detection limits are too high, use the heavy metals calculator.
     <a href="https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/metals-analysis-requirement">https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/metals-analysis-requirement</a>
- 2. Metals that commonly fail due to high detection limits include Molybdenum (Mo) and Selenium (Se).
- 3. If available from your lab, request a Washington State heavy metals test. If not, make sure the lab utilizes the appropriate methods for all nine metals.
- 4. Indicate the product name on each report.
- 5. If the product is subject to Ecology review (waste-derived or micronutrient fertilizers) you must perform the tests as required on the Ecology Questionnaire in addition to the WSDA heavy metals test.

#### Note to laboratory:

- 1. Only use the methods and revisions approved by WSDA as noted in the table below.
- 2. The report must include:
  - Digestion/Preparation method(s) and revision(s) used.
  - Analysis method(s) and revision(s) used.
  - A detection limit (MDL, RL, PQL, etc.) for each element. Do not list results below this limit.
  - Units (ppm or mg/kg)
  - Results for all nine metals, either:
    - > value above reporting limit, or
    - BDL(Below Detection Limit), ND (Not Detected), <value, etc.</p>
- 3. Mercury requires a separate test.

Accepted Methods*	AOAC	EPA SW-846			Suggested minimum	
Digestion/Prep ► For all except Mercury	2006.03	3050B	3010 <sup>1</sup>	3020 <sup>1</sup>	3051 <sup>2</sup>	detection limits for low guarantee products in
Analytical Methods ▼				ppm** (eg. 1% Nitrogen)		
Arsenic (As)	2006.03	6010	6020	7060A	7061A	5
Cadmium (Cd)	2006.03	6010	6020	7130	7131A	1
Cobalt (Co)	2006.03	6010	6020	7200	7201	5
Mercury (Hg)		7470A	7471A	7473	7474 <sup>2</sup>	0.1
Molybdenum (Mo)	2006.03	6010	6020	7480		1
Nickel (Ni)	2006.03	6010	6020	7520	7521	10
Lead (Pb)	2006.03	6010	6020	7420	7421	40
Selenium (Se)	2006.03	6010	6020	7740	7741A	1
Zinc (Zn)	2006.03	6010	6020	7950	7951	150

<sup>\*</sup>Any subsequent revision (letter) to the methods listed above will be accepted by WSDA. Earlier revisions will **NOT** be accepted.

More information can be found at <a href="https://agr.wa.gov/departments/pesticides-and-fertilizers/fe

<sup>\*\*</sup>If guarantee is less than 1% nutrient, use detection limits lower than those stated in this table.

<sup>&</sup>lt;sup>1</sup> Liquids Only

<sup>&</sup>lt;sup>2</sup> Solids Only

# **Commercial Fertilizer Label Examples**

#### **Example 2: Basic Fertilizer Label**

#### **Basic Fertilizer Label**

# SuperFert Super Fertilizer 5-5-5 **Guaranteed Analysis** Total Nitrogen (N) ...... Available Phosphate (P<sub>2</sub>O<sub>5</sub>) ..... 5.0%

#### Product Name, Brand

Wording of the name of the product from the label needs to be the same as the wording on the 4300B form. If this differs from the exact wording on the actual label in use there may be initial confusion of the registration status of the product.

#### **Grade**

- The N-P-K grade must be separated by dashes (-)
- Except for specialty fertilizers and fertilizer materials, the grade must be listed in whole numbers such as 1-2-3 and not fractional numbers such as 1.5-5.0-3.5.

Derived from: urea, rock phosphate, potassium chloride

Soluble Potash (K<sub>2</sub>O)......5.0%

#### The Guaranteed Analysis

- is the MINIMUM level of nutrients guaranteed.
- must list all nutrients guaranteed in the product.
- will not contain zero guarantees.

#### TIP: Round down to ensure that the product meets guarantee

# SuperGro Farm Supply

HWY 9 Homerville, WA 98001 www.supergrofarm.com

Net Weight: 25 Lbs

Information regarding the contents and levels of

metals in this product is available on the internet at:

http://www.aapfco.org/metals.htm

#### **Derivation of Fertilizer Sources Statement**

- The derivation statement immediately follows the guaranteed analysis section.
- The statement provides  $\underline{\textit{all}}$  sources of  $\underline{\textit{each}}$  nutrient guaranteed.
- The section should be listed as "Derived From" or "Sources of Nutrients Claimed".
- The fertilizer sources should be from recognized source materials. Brand names are not acceptable.

#### Name and Address of the Registrant

- Company name and address of the company registering the product must be on the label.
- Other statements such as "Manufactured" for or by (name of company) may be added.

#### **Net weight**

- Must be in pounds or ounces.
- Metric measurements may be displayed, however U.S. measurement must be on the label.
- Liquid product net contents can be listed, however the weight per gallon must also be provided.

#### Approved internet statement

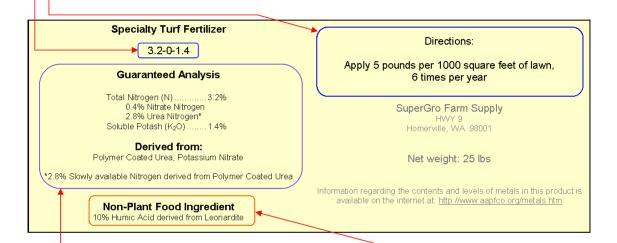
- All fertilizer labels distributed in Washington State must contain the statement:
  - Information regarding the contents and levels of metals in this product is available on the Internet at http://www.aapfco.org/metals.htm.
  - OR another approved internet statement found in WAC 16-200-715.

#### **Example 3: Additional Label Information**

#### **Additional Label Information**

#### What if I have a Specialty Fertilizer?

- ⇒ "Specialty fertilizer" means a commercial fertilizer distributed primarily for nonfarm use, such as, but not limited to, use on home gardens, lawns, shrubbery, flowers, golf courses, municipal parks, cemeteries, greenhouses, and nurseries.
- Specialty fertilizers may be guaranteed in fractional units of less than one percent of total nitrogen, available phosphorus or phosphoric acid, and soluble potassium or potash. Fertilizer materials, bone meal, manures, and similar materials may be guaranteed in fractional units.
- Specialty fertilizers, except manipulated animal and vegetable manures, guaranteeing less than five percent total plant food shall contain on the label specific directions for use. Prior to registration, the department may require proof of the efficacy of the product when used as directed.
- A person may not sell turf fertilizer that is labeled as containing phosphorus except under certain conditions. Read more about the phosphate law at http://agr.wa.gov/pestfert/fertilizers/phosturffert.aspx.



#### What if I claim slow release nutrients?

- Position the slow release claim immediately below the derivation statement
- The slow release statement must include
  - Citation mark linking to nutrient in the quaranteed analysis
  - ♦ The percent of slow release nutrient
  - ♦ The source of the slow release nutrient
- The format above is a sample format. Other accepted formats can be found in the Association of American Plant Food Control Officials (AAPFCO) Official Publication or Product Label Guide at <a href="http://www.aapfco.org/">http://www.aapfco.org/</a>

#### What if I claim Non-Plant Food Ingredients?

- Position the statement immediately below the derivation statement (or slow release statement if present) with the heading:
- ♦ "Non-Plant Food Ingredients", or
- ♦ "ALSO CONTAINS NON-PLANT FOOD INGREDIENTS" if registered in California
- Statement must include
  - ♦ The percentage of non-plant food ingredient
  - ♦ The source of the non-plant food ingredient
- Examples of non-plant food ingredients
- ♦ Silicon/silica (SiO2)
- ♦ Humic Acid/Fulvic Acid
- Lignosulfonates
- Water holding gel

#### **Example 4: Secondary or Micronutrient**

#### What if my product has secondary or micronutrients?

- Grade is not required if NO primary nutrients (N,P,K) are claimed.
- Secondary nutrients (Ca, Mg, S) and micronutrients must be listed in the guaranteed analysis in the same order as the table to the right.
- The product must have the minimum percentage of the nutrient as listed in the table to the right (except hydroponic and continuous liquid feed. See bottom of page for details.).
- Warning statements will be required for products that contain more than 0.1% boron (B) or 0.001% molybdenum (Mo).
- Please note that WSDA does not recognize nickel (Ni) as a micronutrient at this time. Any guarantee for nickel (Ni) must be listed as a Non-Plant Food Ingredient.

#### TID:

If the product contains only micronutrients (no N, P, K, Ca, Mg, S) it is considered a micronutrient fertilizer and subject to review by Washington Departement of Ecology. See Ecology Questionnaire.

	Calcium (Ca)	1%
,	Magnesium (Mg)	0.5%
	Sulfur (S)	1%
	Boron (B)	0.02%
	Chlorine (CI)	0.1%
	Cobalt (Co)	0.0005%
	Copper (Cu)	0.05%
	Iron (Fe)	0.1%
	Manganese (Mn)	0.05%
	Molybdenum (Mo)	0.0005%
	Sodium (Na)	0.1%
	Zinc (Zn)	0.05%

#### Super Hydro Fertilizer

0.6-0-0.3

#### **Guaranteed Analysis**

Lotal Nitrogen (N)	0.6%
Soluble Potash (K <sub>2</sub> O)	0.3%
Sulfur (S)	
Boron (B)	0.05%
Iron (Fe)	
Molybdenum (Mo)	
. ,	

#### Derived from:

potassium citrate, ammonium sulfate, iron EDTA, boric acid, sodium molybdate

This fertilizer contains boron, which may be injurious to certain crops. Contact your local county agent or field consultant for specific information.

CAUTION: This fertilizer is to be used only on crops which respond to molybdenum. Crops high in molybdenum are toxic to grazing animals (ruminants).

Directions for use

Hydroponic: add 2.0 ml per gallon to the nutrient tank

Continuous Liquid Feed: Add Super Hydro Fertilizer to the irrigation water at a rate of 1.0 ml per gallon every time the plant needs water.

> SuperGro Farm Supply HWY 9 Homerville, WA 98001 www.supergrofarm.com

Net Contents: 32 fl. Oz. Net Weight: 2.2 lbs.

Information regarding the contents and levels of metals in this product is available on the internet at:

http://www.aapfco.org/metals.htm

# What if my product is labeled <u>ONLY</u> for hydroponic or continuous liquid feed?

- These product labels may guarantee levels of plant nutrients below the minimum guarantees required for commercial fertilizers.
- The label must not have directions for anything except hydroponic or continuous liquid feed uses. (If there are directions for foliar spray or your product is a dry continuous feed, this exemption does not apply).
- Low guarantee products require metals tests with lower detection limits.
   See the metals calculator to determine the required detection limits http://agr.wa.gov/Pestfert/Fertilizers/docs/form\_MetalsCalculator.xlsx.

#### What if my fertilizer is a liquid?

 Liquid product net contents can be listed, however, the weight per gallon must also be provided.

#### Alternative net weight listing

Net Contents: 32 fl. Oz Density: 8.8 lbs per gallon

#### **Example 5: Organic**

#### What if my product is Organic?

- "Organic" means a material containing carbon and one or more elements (other than hydrogen and
  oxygen) essential for plant growth. When the term "organic" is utilized in the label or labeling of any
  commercial fertilizer, it shall be qualified as either "synthetic organic" or "natural organic," with the
  percentage of each specified.
- Use of the WSDA Registered Organic Material logo, the phrase "Certified for use in organic production" or any other organic use claim will be verified by WSDA Registration Services. Labels or labeling bearing false claims will be rejected.
- If you would like to be listed on WSDA's Organic Food Program's Brand Name Material List please contact organicmaterials@agr.wa.gov or 360-902-1805.
- All fertilizers must be registered with WSDA Registration Services before they can be approved by WSDA Organic Materials Review.

#### TIP:

Do not include the WSDA Organic Logo until the product has been registered with WSDA Organic Program.

#### **Super Organic Fertilizer**

90% Natural Organic

3-1-2

#### **Guaranteed Analysis**

Total Nitrogen(N) 3% Available Phosphate  $(P_2O_5)$  1% Soluble Potash  $(K_2O)$  2%

#### Derived from:

Soybean Meal, rock phosphate, Kelp (*Ascophyllum nodosum*)



WSDA Registered Material for Use in Organic Agriculture

SuperGro Farm Supply HWY 9 Homerville, WA 98001 www.supergrofarm.com

Net Weight 10 lbs

Information regarding the contents and levels of metals in this product is available on the internet at:

<a href="http://www.aapfco.org/metals.htm">http://www.aapfco.org/metals.htm</a>

#### **Example 6: CFM Label**

#### What if my product is a Customer Formula Fertilizer (CFF or CFM)?

- "Customer-formula fertilizer" means a mixture of commercial fertilizer or materials of which each batch is mixed according to the specifications of the final purchaser (also referred to as a "customer formula mix").
- Label must include all items from the basic fertilizer label <u>except</u> the heavy metal internet statement.
- Label must also include name and address of the purchaser.

#### TIPS:

1.

One CFF registration can be used for multiple blends and multiple customers under the same name (ex. SuperGro Farm Supply CFF). Must be mixed per customer specifications and on demand.

2

All fertilizer products in a CFF must be registered with WSDA.

# SuperGro Farm Supply CFF

#### **Custom mix for:**

Blue Bird Farms HWY 10 Homerville, WA 98001

#### 26-0-26

#### **Guaranteed Analysis**

Total Nitrogen(N) 26% Soluble Potash 26%

#### Derived from:

Urea, Muriate of potash

SuperGro Farm Supply HWY 9 Homerville, WA 98001 www.supergrofarm.com

Net weight on load slip

#### SuperGro Farm Supply BOL

#### Delivered to:

Blue Bird Farms HWY 10 Homerville, WA 98001

Product	Weight (lbs)
Urea (46-0-0)	22,800
Muriate of Potash (0-0-62)	17,200
Net Weight	40,000

SuperGro Farm Supply HWY 9 Homerville, WA 98001 www.supergrofarm.com

Both sheets are required for a complete label

#### What if my product is distributed in bulk?

- A label or statement that includes all of the information from the basic label must be included with the load.
- A load slip or bill of lading may be used as a label or supplemental label for bulk products only.
- Bulk products still require the approved internet statement unless it is a CFF.

#### TIP:

Companies distributing bulk products must have a Bulk Fertilizer Distribution License. More information can be found at: http://agr.wa.gov/PestFert/Fertilizers/BulkDistributionLicense.aspx

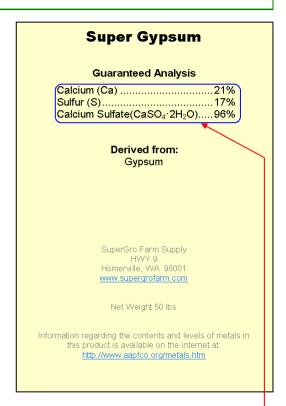
#### **Example 7: Product is a Lime**

#### What if my product is a lime?

Must contain all of the items on the basic fertilizer label, PLUS-

- → The percentage of calcium or magnesium expressed as carbonate (CaCO3 or MgCO3);
- → The calcium carbonate equivalent (CCE) as determined by methods prescribed by the Association of Official Analytical Chemists (AOAC);
- The minimum percentage of material that will pass respectively a one hundred mesh (100), sixty mesh (60), and ten mesh (10) sieve. The mesh size declaration may also include the percentage of material that will pass additional mesh sizes;
  - Calcium (Ca) and/or magnesium (Mg) may also be guaranteed.

# **Super Lime Guaranteed Analysis** Calcium (Ca) ...38% Calcium Carbonate (CaCO<sub>3</sub>) ......95% Calcium Carbonate Equivalent (CCE)......95% Minimum percent material that will pass 100 mesh ...... 98% 60 mesh ...... 100% 10 mesh ...... 100% Derived from: Pulverized Calcitic Limestone SuperGro Farm Supply Homerville, WA 98001 www.supergrofarm.com Net Weight 25 Lbs Information regarding the contents and levels of metals in this product is available on the internet at http://www.aapfco.org/metals.htm



#### What if my product is gypsum?

- The guaranteed analysis must include a guarantee for Calcium Sulfate (CaSO<sub>4</sub>·2H<sub>2</sub>O) in addition to the guarantee for Sulfur (S). Also acceptable would be:
  - Gypsum (CaSO<sub>4</sub>·2H<sub>2</sub>O)
  - Calcium Sulfate Dihydrate (CaSO<sub>4</sub>·2H<sub>2</sub>O)
- $\bullet \quad \text{All gypsum guarantees should be for $CaSO_4$: $2H_2O$ even if the product is an anhydrite gypsum.}$
- · Calcium may also be guaranteed.

# **Additional Label Information**

# **Commercial Fertilizer Label Information**

- 1. All fertilizers require a label that describes the product. Packaged fertilizers require a label affixed to the package, while bulk fertilizers may be accompanied by a bill of lading that contains all of the labeling requirements or that has the label attached.
  - Labeling is defined as: all written, printed, or graphic matter, or advertisement, brochures, posters, television and radio announcements used in promoting the sale of such fertilizer. Be aware that the claims and statements made on your internet site are considered enforceable labeling.
  - **Bill of Lading:** For Bulk products, a bill of lading may substitute as all or part of your label. All parts of a label must be covered by these documents.
- 2. Products with label statements suggesting pesticide use (including adjuvants) must be registered as pesticides. For more information, visit <a href="https://agr.wa.gov/departments/pesticides-and-fertilizers/pesticides/product-registration">https://agr.wa.gov/departments/pesticides-and-fertilizers/pesticides/product-registration</a>.

# Label Requirements for Commercial Fertilizer Labels with Organic Claims

- 1. Product labels that contain organic claims must be consistent with the following definitions under the Commercial Fertilizer Rule (caution adding the word "organic" to your product does not mean that it is approved for organic production):
  - **Natural organic** means a material derived from either plant or animal products containing carbon and one or more elements (other than hydrogen and oxygen) essential for plant growth. (ie. composted manure, acidulated fish waste, bone meal, and limestone)
  - **Synthetic organic** means a material that is manufactured chemically (by synthesis) from its elements and other chemicals, containing carbon and one or more elements (other than hydrogen and oxygen) essential for plant growth. (ie. urea, basic lime phosphate, and copper EDTA)
- 2. Using these definitions, a product which is comprised solely of bone meal, kelp and/or other natural organics could claim "100% natural organic" or "all natural organic." Products which contain a portion of their material as organic must list the actual percentage of that material, i.e., "95% natural organic." The same is true for synthetic organic claims.
- 3. Use of the WSDA Registered Organic Material logo, the phrase "Certified for use in organic production" or any other organic use claim will be verified by WSDA Registration Services. Labels or labeling bearing false claims will be rejected. Remember: All fertilizers must be registered with WSDA Registration Services before they can be approved by WSDA Organic Materials Review. The Organic Program web site address is <a href="https://agr.wa.gov/departments/organic/input-material-registration">https://agr.wa.gov/departments/organic/input-material-registration</a>

4. Mineral materials used as fertilizers such as rock phosphate, borax, or greensand are not "organic" according to the fertilizer rule definition. These products may be considered as natural, however. Because these minerals do not contain carbon atoms, they do not meet the definition of organic. "Organic" does not mean pure or natural. "Organic" products still must be assessed the same as all other fertilizers. Biosolids are not natural nor organic.

# Slow-Release Fertilizer Label Requirements

- 1. There are several approved formats for guaranteeing slow-release fertilizers. The most commonly used formats are listed below. For additional information, you may obtain an Association of American Plant Food Control Officials (AAPFCO) publication, which lists all other formats. See the contact information section for AAPFCO's address.
- 2. If an amount of nitrogen is designated as organic then the water insoluble nitrogen or the slow release nitrogen guarantee must not be less than 60% of the nitrogen so designated. Coated urea shall not be included in meeting the 60% requirement.
- 3. When a slowly released nutrient is less than 15% of the guarantee for total nitrogen, available phosphate, or soluble potash, as appropriate, the label shall bear no reference to such designations.

# **Ecology Questionnaire and Review**

An Ecology Questionnaire must be filled out and submitted for all "micronutrient" and "waste-derived" fertilizers. Make sure to read the descriptions below to avoid unnecessary testing, expense, and extended review time. If your product is not a micronutrient fertilizer and is not waste-derived, a review by Ecology is not required. Make sure to answer both questions in the "Ecology Information" section on the 4300B form. If your product is not waste-derived you do not need to submit the questionnaire. Ecology requires two additional analytical tests before micronutrient fertilizers and waste-derived products can be registered.

# What is a Micronutrient Fertilizer?

Primary Nutrients	Secondary Nutrients	Micronutrients
Total Nitrogen (N) Available Phosphate (P2O5) Soluble Potash (K2O)	Calcium (Ca) Magnesium (Mg) Sulfur (S)	Boron (B) Chlorine (Cl) Cobalt (Co) Copper (Cu) Iron (Fe) Manganese (Mn) Molybdenum (Mo) Sodium (Na) Zinc (Zn)

Just because your fertilizer contains micronutrients does not automatically mean that it is a micronutrient fertilizer. A micronutrient fertilizer guarantees one or more micronutrient, but does not guarantee any primary or secondary nutrients:

If it is not a micronutrient fertilizer, you still must determine whether it is waste-derived.

# **Is Your Fertilizer Waste-Derived?**

With some exceptions as described under 5, below, the following five groups of fertilizer products are waste-derived and must be reviewed by Ecology:

- 1. Fertilizer products created by waste generators. For <u>waste generators</u> who manufacture a fertilizer from their waste, that fertilizer is waste-derived regardless of the type of waste or the processing and refining that occurs.
- 2. Fertilizers that contain any type of industrial, chemical or non-organic type of waste. The following are just a few examples of such waste ingredients:
  - Basic slag, used acids, chemical production wastes, wood ash, boiler ash, cement flue dust, digested sewage sludge, air emissions scrubber dust, etc.
- 3. Fertilizers that are imported from another country that contain wasteingredients.

- 4. Any fertilizer containing guano (bat/bird) is considered waste-derived.
- 5. Fertilizers created from organic waste ingredients, unless those ingredients were a "useable product" at the time the fertilizer was created. (See flow diagrams later in this section)

This fifth group of fertilizers contains organic wastes such as:

- food-processing wastes
- animal food-processing wastes
- manures
- pure plant wastes

Just because your fertilizer contains organic ingredients that were once waste does not automatically make it a waste-derived fertilizer. Read through the explanation below, then ask yourself the questions and review the charts that follow.

When a waste generator refines, processes or treats their organic waste to create a "usable product" that usable product is no longer solid waste. Therefore, when the usable <u>product</u> that was created from organic waste is used as an ingredient in a fertilizer, that fertilizer is not waste-derived (assuming other waste sources were not added). The fertilizer contains no waste ingredients. It contains the usable product (which is no longer waste) and other ingredients.

On the other hand, if a waste generator simply sends their organic waste to a fertilizer manufacturer as a means to get rid of it, it is still waste and the fertilizer created from that waste is "wastederived." In this scenario, the waste generator did not create a product out of their organic waste. This is true even if the waste generator treats the organic waste with a preservative or stabilizer for later handling and disposal. The preservative or stabilizer does not make the organic waste a usable product. It was only added to facilitate disposal, including sending the preserved/stabilized organic waste to a fertilizer manufacturer.

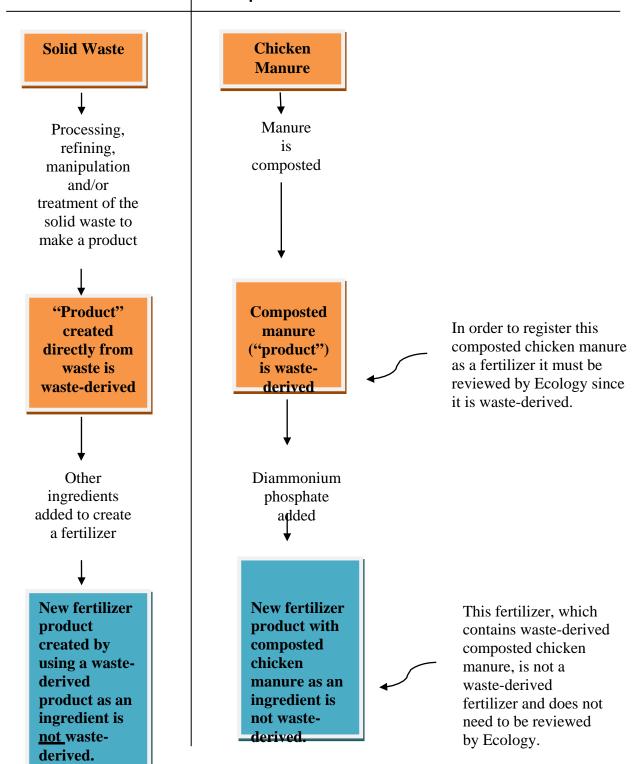
To determine whether your fertilizer product is "waste derived" it may be helpful to answer some questions about any ingredient(s) that could be organic waste:

- Is the ingredient processed or refined (composted, digested, dried, milled, etc.)?
- Is the ingredient marketed for use in fertilizers or other products?
- Did you have to pay for the product itself in addition to shipping charges?
- Is the ingredient packaged for marketability?

If you answered "yes" to one or more of the questions above, especially the first, it is an indication that the ingredient may be a product rather than solid waste.

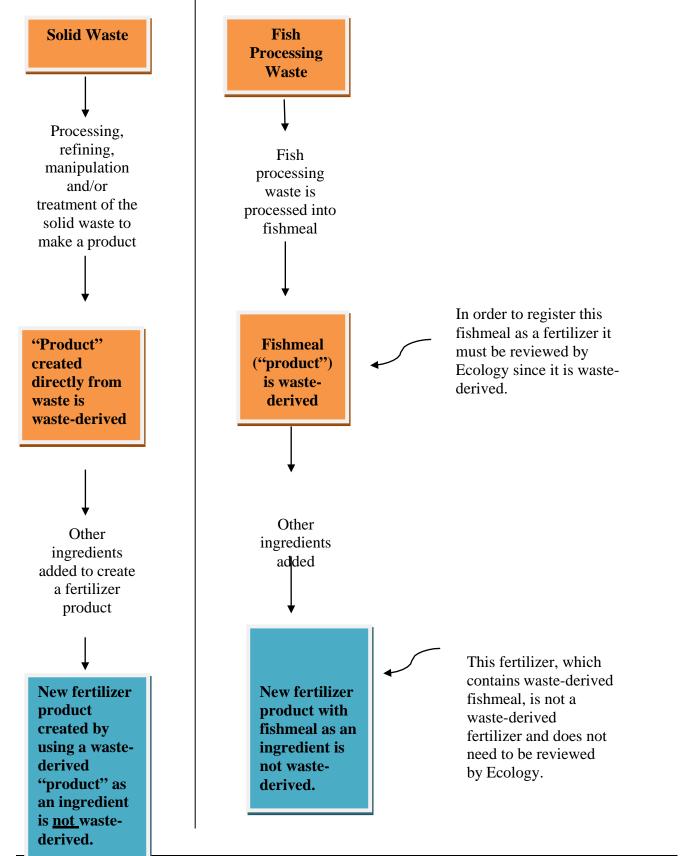
#### **Process**

#### **Example 1: Fertilizer Product that is not Waste-Derived**



#### **Process**

#### **Example 2: Fertilizer Product that is not Waste-Derived**



#### **Process**

# **Example 3: Fertilizer Product that is Waste-Derived**

#### **Solid Waste** Fish **Processing** Waste No processing, refining, or Fish processing manipulation waste is and minimal stabilized or treatment, if preserved for any. future handling and disposal. Even though this fish processing waste was Material is treated **Preserved** not a product. (stabilized/preserved), the and/or It is still a stabilized/preserved fish stabilized fish solid waste processing waste is not a processing even if treated "product." It was only waste is not a with stabilized or preserved for "product," it preservative. future handling and is still waste. disposal. Ecology still classifies this as solid waste. Other ingredients Other added to create ingredients a fertilizer added product This fertilizer, which contains fish **Fertilizer New fertilizer** processing waste, is a product product with waste-derived created by fish fertilizer and must be using waste as processing reviewed by Ecology. an ingredient waste as an ingredient is is wastewastederived.

derived.

# **Product-Specific Definitions**

# **Biosolids**

(Treated municipal sewage sludge)

Bio-solids are processed municipal sewage sludge that can be beneficially recycled and have undergone adequate treatment to permit their application to land. Most are used as soil amendments and are regulated by the Department of Ecology. Unpackaged bio-solids are distributed in a loose form and are generally exempt from the fertilizer law and registration. Packaged bio-solids are distributed in a container and are regulated as a fertilizer when they make fertilizer claims (such as a guaranteed analysis) on the labeling. Unpackaged and packaged bio-solids that do not meet the definition for commercial fertilizer must include a legible and conspicuous disclaimer on the labeling. The disclaimer must state that the product is not a commercial fertilizer and that any nutrient claims are estimates or averages and are not guaranteed.

# **Compost**

Commercial composting is regulated by the Washington State Department of Ecology. The regulatory information can be found in Chapter 173-350 WAC Solid Waste Handling Standards and at this web site: <a href="https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Organic-materials/Managing-organics-compost">https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Organic-materials/Managing-organics-compost</a>

Composts can be plant and/or animal material. Under the fertilizer law, if the compost fits the definition of organic waste-derived material (below), it is exempt from the law, regardless of the nutrient or plant growth claims. Animal manures and animal wastes are not considered organic-waste derived materials and do require registration if manipulated and making nutrient claims. Composts may be reviewed by the Organic Food Program for organic crop production.

- "Organic waste-derived material" means grass clippings, leaves, weeds, bark, plantings, prunings, and other vegetative wastes, uncontaminated wood waste from logging and milling operations, food wastes, food processing wastes, and materials derived from these wastes through composting. "Organic waste-derived material" does not include products that include biosolids.
- Composting is the controlled aerobic degradation of organic wastematerials.
- Manipulation means processed or treated in any manner, including drying to a moisture content less than 30%.
- Exempt from the definition of a fertilizer are un-manipulated animal and vegetable manures and organic-waste derived materials.

# **Potting Soils**

Potting soils that do not contain nutrient claims on the product label are not required to be registered as fertilizers. Those potting soils that are sold with nutrient claims are considered fertilizers and are regulated as such. Contact Fertilizer Registration for more information regarding the registration of potting soils. Washington State does not have laws or rules that specifically address horticultural

mediums, potting soils, or soil amendments. These products may be registered as fertilizers on a case by case basis, depending upon the label claims and guarantees.

# Pesticide/Fertilizer Combination Products

Products that contain both fertilizers and pesticides (insecticide, herbicide, fungicide or spray adjuvant) are considered combination products. These must be registered with both the Fertilizer and Pesticide Registration Programs. The registration periods for these programs differ. The pesticide registration period is from January 1 through December 31, and the fertilizer registration period is from July 1 to June 30.

WSDA recommends whenever a combination product is submitted for registration, applications and fees should be submitted separately for both fertilizer and pesticide registration. For information regarding pesticide registration see <a href="https://agr.wa.gov/departments/pesticides-and-fertilizers/pesticides/product-registration">https://agr.wa.gov/departments/pesticides-and-fertilizers/pesticides/product-registration</a>

# **Customer Formula Fertilizer Mixes (CFMs)**

A CFM must be formulated and mixed according to each customer's requests. This mix is blended in bulk for only one customer to use. It cannot be resold without first being registered. All of the commercial fertilizer products going into the blend must be registered with WSDA. The end product (CFM) can be bagged for the one customer, if requested. The CFM must have labeling attached with all the elements of the label included. The CFM mix formulas and records must be kept for one year. The customer name and address must accompany this information.

"CFM" is registered as a product with other fertilizers on the 4300B Form. All customer formula mixes that are sold under one brand name such as Blue Bird are considered one product. No specific guaranteed analysis or metals are required on the form because the "CFM" can only be made from registered fertilizers and change with each blend.

Each delivery of a customer-formula fertilizer mix (CFM) must contain those ingredients specified by the final purchaser. A CFM is only for the customer requesting the mix and should only be used by that customer, not resold to others. A CFM is only for use, not for retailing or reselling.

# **Products Considered Non-Plant Food Ingredients**

**Phosphorous acid** and **phosphite** differ from phosphorus or phosphate ( $P_2O_5$ ). Phosphorous acid and phosphite do not provide  $P_2O_5$  and are not considered a valid source of available phosphate for plant nutrition. If the purpose of the phosphorous acid or phosphite in the formation is for pesticidal reasons, the product must also be registered with EPA and WSDA as a pesticide.

Materials such as **humic acids** and **lignosulfonates** are not recognized as plant food sources. Micronutrients can be chelated with lignosulfonate but lignosulfonate is not considered an allowable source of sulfate. Definitions of plant food sources are found in the WSDA law and rule and in the AAPFCO Official Publication (see Contact section). Other non-plant food ingredients can include silicon or water-holding gel.

# **Related Information**

# **Fertilizer Product Database**

WSDA's fertilizer product database provides information on the total metal concentration of each of the nine heavy metals for which Washington State has developed soil loading standards. The WSDA web link for the database is <a href="https://agr.wa.gov/departments/pesticides-and-fertilizers/fe

# **Bulk Commercial Fertilizer Distribution License**

This annual license is required for each location (whether in or out of state) that distributes bulk fertilizer in Washington State. The application is completed through the Business Licensing Service located at bls.dor.wa.gov/.

# **Tonnage Reporting**

All licensees and registrants are required to submit a Commercial Fertilizer Tonnage Report. The WSDA web link for tonnage is <a href="https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/tonnage-reporting">https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/tonnage-reporting</a>

# **Secondary Containment**

Primary storage of bulk liquid fertilizers at a permanent storage facility shall be located within secondary containment designed to prevent the release of discharged fertilizers. The WSDA web link for secondary containment is <a href="https://agr.wa.gov/departments/pesticides-and-fertilizers/secondary-containment">https://agr.wa.gov/departments/pesticides-and-fertilizers/secondary-containment</a>

# **WSDA Organic Food Program Registration**

The WSDA Organic Food Program, a USDA-accredited certifier, upholds the integrity of the organic label through certification and inspection of organic crop and livestock producers, processors, handlers and retailers. The WSDA web link for the Organic Food program is

https://agr.wa.gov/departments/organic/input-material-registration.

# **Contact Information**

# **WSDA**

Washington State Department of Agriculture Pesticide Management Division 1111 Washington Street, NRB - 2<sup>nd</sup> Floor P.O. Box 42589 Olympia, WA 98504-2589

Fertilizer Information: (360) 902-2025

Fax: (360) 902-2093

E-mail: fertreg@agr.wa.gov

#### **ECOLOGY**

Washington State Department of Ecology Hazardous Waste & Toxics Reduction Program Jon Jennings 300 Desmond Drive P.O. Box 47600 Lacey, WA 98504-7600

Phone: (360) 407-6786

E-mail: ecyHWTRfertilizer@ECY.WA.GOV

# **AAPFCO**

The Official Publication of the Association of American Plant Food Control Officials may be purchased from: https://www.aapfco.org/publications.html

# **WSU Laboratory Booklet**

EB1578

Analytical Laboratories and Consultants Serving Agriculture in the Pacific Northwest, June 2003. whatcom.wsu.edu/ch/documents/Analyt Labs PNW EB1578E.pdf.