

Oregon Department of Agriculture

Fertilizer Program

Laboratory Analysis Results

January 1 – December 31, 2008

Official samples of fertilizer, agricultural mineral, agricultural amendment, and lime products are collected by the Department on a continuing basis. Samples are collected to determine if the guaranteed analysis identified on the product label is being satisfied. Routine product sampling provides a two-fold benefit: 1. Consumer protection for buyers; and 2. Identification of potential process problems for blenders and manufacturers.

A sample is considered deficient and in violation if the lab analysis of any guaranteed element is below the stated guarantee by an amount greater than the investigational allowance. The Department uses investigational allowances developed by the Association of American Plant Food Control Officials (AAPFCO). These investigational allowances were officially adopted by the Department as Oregon Administrative Rule (OAR) 603-059-0070 and are available on the fertilizer program's web page:

<http://oregon.gov/oda/pest/fertilizer.shtml>

Sample analysis results are sorted alphabetically by company name. Company location denotes where the product is registered from, and not necessarily where the sample was collected. Product names marked with an asterisk (*) are custom mixes. These custom mix products do not require registration and were sampled at the location listed.

Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
Agrium US, Inc. Winston-Salem, North Carolina	20.5-0-0 Sulfate Plus - Granular	Total Nitrogen (N)	20.8%	20.5%	No
		Sulfur (S)	24.4%	24%	No
Actagro, LLC Biola, California	0-0-28 pHighter K	Soluble Potash (K ₂ O)	28%	28%	No
Ag Specialties, LLC Tigard, Oregon	Ag Specialties Brand Ferrous Sulfate (Monohydrate)	Sulfur (S)	18.4%	16%	No
		Iron (Fe)	35%	30%	No
Agricare, Inc. Amity, Oregon	1-0.1-1 Dry Humasol	Total Nitrogen (N)	0.81%	1%	No
		Available Phosphate (P ₂ O ₅)	0.04%	0.1%	No
		Soluble Potash (K ₂ O)	2.2%	1%	No
		Calcium (Ca)	1.14%	3%	Yes
		Magnesium (Mg)	0.0732%	0.6%	Yes
		Sulfur (S)	0.15%	2.5%	Yes
		Boron (B)	0.00863%	0.02%	Yes
Iron (Fe)	0.386%	0.75%	Yes		
	Humic Acid	70.4%	70%	No	

Oregon Department of Agriculture Fertilizer Program

Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
Bay Zinc Company, Inc. Moxee, Washington	Blu-Min Zinc-Granular 33% Zinc Granular with Sulfur (35.5% Zn)	Sulfur (S)	17.2%	18%	No
		Zinc (Zn)	37%	35.5%	No
Big Quill Resources, Inc. Wynyard, Saskatchewan	0-0-50-17 Potassium Sulphate SOP – 17IX	Soluble Potash (K ₂ O)	52.6%	50%	No
		Sulfur (S)	18.3%	17%	No
	0-0-53-18 Potassium Sulphate SOP – 17IX	Soluble Potash (K ₂ O)	52.5%	53%	No
		Sulfur (S)	18.4%	18%	No
Caltex Agri Marketing Services Modesto, California	0-0-1 Kelpak Liquid Seaweed Concentrate Organic Plant Nutrient	Soluble Potash (K ₂ O)	1%	1%	No
Canton Mills, Inc. Minnesota City, Minnesota	0-3-0 Calphos	Available Phosphate (P ₂ O ₅)	10.3%	3%	No
		Calcium (Ca)	19.7%	20%	No
Chemical Lime Company Salinas, California	#10 Ag Dolomite Agricultural Liming Material and Fertilizer Supplement	Calcium (Ca)	22.5%	21.9%	No
		Magnesium (Mg)	13%	12.3%	No
		Calcium Carbonate (CaCO ₃)	55.4%	54.7%	No
		Calcium Carbonate Equivalent (CCE)	109%	103%	No
		Magnesium Carbonate (MgCO ₃)	53.5%	52.6%	No
		% Passing 100 Mesh Sieve	10.1%	10%	No
		% Passing 40 Mesh Sieve	53.2%	31%	No
		% Passing 20 Mesh Sieve	85.3%	60%	No
		% Passing 10 Mesh Sieve	100%	98%	No
		Lime Score	83.78	60	No
	Moisture (Maximum)	0.01%	< 2%	No	
Enviro-Safe Laboratories, Inc. Sarasota, Florida	16-2-14 Garden Club Select All-Purpose Indoor & Outdoor Premium Slow Release Plant Food	Total Nitrogen (N)	19.6%	16%	No
		Available Phosphate (P ₂ O ₅)	2.37%	2%	No
		Soluble Potash (K₂O)	12.1%	14%	Yes
		Magnesium (Mg)	2.86%	2.41%	No
		Sulfur (S)	4.9%	2.94%	No
		Copper (Cu)	0.031%	0.05%	Yes
		Iron (Fe)	0.47%	0.47%	No
		Manganese (Mn)	0.21%	0.23%	No
	Zinc (Zn)	0.092%	0.05%	No	
Fitzmaurice Fertilizer, Inc. Salem, Oregon	0-0-18 Nutra-Sup Foliar Fertilizer	Soluble Potash (K ₂ O)	18.7%	18%	No
Frit Industries, Inc. Ozark, Alabama	F-503 G-OR	Boron (B)	2.19%	2.4%	No
		Copper (Cu)	4.66%	2.4%	No
		Iron (Fe)	18.4%	14.4%	No
		Manganese (Mn)	8.31%	6%	No
		Molybdenum (Mo)	0.0145%	0.06%	Yes
		Zinc (Zn)	8.25%	5.6%	No

Oregon Department of Agriculture Fertilizer Program

Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
Gro Tec, Inc. Covington, Georgia	6-10-10 Pennington Lawn Products All Purpose Plant Food	Total Nitrogen (N)	5.36%	6%	Yes
		Available Phosphate (P ₂ O ₅)	9.34%	10%	No
		Soluble Potash (K ₂ O)	9.84%	10%	No
Gubler Orchids Landers, California	19-8-16 Pro-Blend Orchid Food	Total Nitrogen (N)	19.8%	19%	No
		Available Phosphate (P ₂ O ₅)	8.31%	8%	No
		Soluble Potash (K ₂ O)	16.9%	16%	No
		Magnesium (Mg)	1.19%	1%	No
		Boron (B)	0.00056%	0.01%	Yes
		Copper (Cu)	0.092%	0.05%	No
		Iron (Fe)	0.14%	0.1%	No
		Manganese (Mn)	0.092%	0.05%	No
		Molybdenum (Mo)	0.0003%	0.0005%	No
Zinc (Zn)	0.094%	0.05%	No		
Helena Chemical Company Collierville, Tennessee	4-15-0 PhosCal-Zin FL Foliar Nutritional Liquid Flowable	Total Nitrogen (N)	3.72%	4%	No
		Available Phosphate (P ₂ O ₅)	14.6%	15%	No
		Calcium (Ca)	13.3%	13%	No
		Zinc (Zn)	8.7%	7.7%	No
Intrepid Potash – Wendover LLC Moab, Utah	0-0-60 Muriate of Potash	Soluble Potash (K ₂ O)	60%	60%	No
Ironite Products Company Salem, Virginia	7-6-6 Ironite Plant & Flower Food	Total Nitrogen (N)	7.11%	7%	No
		Available Phosphate (P ₂ O ₅)	6.11%	6%	No
		Soluble Potash (K ₂ O)	6.03%	6%	No
		Sulfur (S)	0.922%	1%	No
		Boron (B)	0.0219%	0.02%	No
		Iron (Fe)	0.14%	0.1%	No
		Manganese (Mn)	0.0504%	0.05%	No
		Zinc (Zn)	0.058%	0.05%	No
J. R. Simplot Company Lathrop, California	11-52-0 Monoammonium Phosphate	Total Nitrogen (N)	10.5%	11%	No
		Available Phosphate (P ₂ O ₅)	53.5%	52%	No
		Sulfur (S)	1.72%	1.8%	No
	11-52-0 Monoammonium Phosphate	Total Nitrogen (N)	10.5%	11%	No
		Available Phosphate (P ₂ O ₅)	53.4%	52%	No
		Sulfur (S)	1.71%	1.8%	No
	Agropell 16-20-0 Ammonium Phosphate with 13% Sulfur	Total Nitrogen (N)	16.7%	16%	No
		Available Phosphate (P ₂ O ₅)	20.3%	20%	No
		Sulfur (S)	14.9%	13%	No
KWS Distributing, LLC Salem, Oregon	0-0-36 Dri-Phite	Soluble Potash (K ₂ O)	39.3%	36%	No
	Iron (Ferrous) Sulphate 6-12 Mesh	Iron (Fe) Sulfur (S)	31.7% 18.9%	30% 18%	No No

Oregon Department of Agriculture Fertilizer Program

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Midstate Fertilizer Co. Redmond, Oregon	11-52-0	Total Nitrogen (N)	13.7%	11%	No
		Available Phosphate (P ₂ O ₅)	53.4%	52%	No
	20.5-0-0-24(S)	Total Nitrogen (N)	21.7%	20.5%	No
		Sulfur (S)	23.83%	24%	No
	46-0-0	Total Nitrogen (N)	48.2%	46%	No
Lilly Miller Brands Salem, Virginia	5-10-10 Lilly Miller Morcrop Tomato & Vegetable Food	Total Nitrogen (N)	5.03%	5%	No
		Available Phosphate (P ₂ O ₅)	9.9%	10%	No
		Soluble Potash (K ₂ O)	10.9%	10%	No
		Calcium (Ca)	12%	4%	No
		Sulfur (S)	0.979%	1%	No
		Boron (B)	0.037%	0.02%	No
		Iron (Fe)	0.32%	0.1%	No
		Manganese (Mn)	0.16%	0.05%	No
		Molybdenum (Mo)	0.001%	0.0005%	No
		Zinc (Zn)	0.19%	0.05%	No
Marion Ag Service St. Paul, Oregon	0-0-60	Soluble Potash (K ₂ O)	60%	63%	No
	0-0-2.24 Zeolite	Soluble Potash (K ₂ O)	4.3%	2.24%	No
	0-3-0 Rock Phosphate	Available Phosphate (P ₂ O ₅)	7.26%	3%	No
		Calcium (Ca)	26.8%	24%	No
	16-20-0-14(S)	Total Nitrogen (N)	17%	16%	No
		Available Phosphate (P ₂ O ₅)	21.4%	20%	No
		Sulfur (S)	14.9%	14%	No
	20-0-0 Ammonium Sulfate	Total Nitrogen (N)	20.3%	20%	No
Sulfur (S)		23.9%	24%	No	
Zinc (Zn)		1.05%	0.9%	No	
4-0-0 Crab Meal	Total Nitrogen (N)	3.86%	4%	No	
	Calcium (Ca)	17.9%	12%	No	
43-0-0 XCU Polymer Coated, Sulfur Coated Urea	Total Nitrogen (N)	44.9%	43%	No	
	Sulfur (S)	4.62%	4%	No	
Martrex, Inc. Minnetonka, Minnesota	Zinc Sulfate Monohydrate Powder	Sulfur (S)	17.7%	17%	No
		Zinc (Zn)	35%	35%	No
Miracle-Gro Lawn Products, Inc. Marysville, Ohio	0.21-0.07-0.14 Miracle- Gro Moisture Control Potting Mix	Total Nitrogen (N)	0.33%	0.21%	No
		Available Phosphate (P ₂ O ₅)	0.07%	0.07%	No
		Soluble Potash (K ₂ O)	0.24%	0.14%	No
Nutri Ag, Ltd. Toronto, Ontario	Spraybor Natural Sodium Borate (Water Soluble)	Boron (B)	26.6%	16.5%	No

Oregon Department of Agriculture Fertilizer Program

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Pacific Calcium, Inc. Tonasket, Washington	0-3-0 Montana Natural Granulated Phosphate Rock	Available Phosphate (P ₂ O ₅)	5.05%	3%	No
		Calcium (Ca)	28%	29%	No
		Arsenic (Max)	80.0 ppm	54 ppm	Yes
PCS Sales (USA), Inc. Northbrook, Illinois	0-0-60 Granular Muriate of Potash	Soluble Potash (K ₂ O)	61.4%	60%	No
Perfect Blend, LLC Bellevue, Washington	8-5-5 Enhanced Organic Based Lawn Fertilizer	Total Nitrogen (N)	9.3%	8%	No
		Available Phosphate (P₂O₅)	3.4%	5%	Yes
		Soluble Potash (K ₂ O)	4.88%	5%	No
		Calcium (Ca)	12%	7%	No
		Magnesium (Mg)	0.76%	0.7%	No
		Sulfur (S)	1.98%	3%	Yes
		Boron (B)	0.0039%	0.02%	No
		Chlorine (Cl)	1.15%	0.1%	No
		Copper (Cu)	0.026%	0.05%	Yes
		Iron (Fe)	0.12%	0.1%	No
		Manganese (Mn)	0.05%	0.05%	No
		Molybdenum (Mo)	0.00048%	0.0005%	No
Sodium (Na)	0.4%	0.1%	No		
Zinc (Zn)	0.049%	0.05%	No		
Pierce County Public Works University Place, Washington	5-4-0 SoundGro	Total Nitrogen (N)	5.5%	5%	No
		Available Phosphate (P ₂ O ₅)	7.88%	4%	No
		Calcium (Ca)	3.34%	3%	No
		Magnesium (Mg)	1.27%	0.9%	No
		Iron (Fe)	0.524%	0.55%	No
		Molybdenum (Mo)	0.00165%	0.001%	No
		Zinc (Zn)	0.0903%	0.05%	No
Prince Minerals, Inc. Quincy, Illinois	Granusol Magnesium	Magnesium (Mg)	50.9%	45%	No
Scotts Miracle-Gro Products, Inc. Marysville, Ohio	12-6-9 Miracle-Gro Ready to Use LiquaFeed Bloom Booster Flower Food	Total Nitrogen (N)	12%	12%	No
		Available Phosphate (P ₂ O ₅)	9.1%	9%	No
		Soluble Potash (K ₂ O)	6.42%	6%	No
		Manganese (Mn)	0.059%	0.05%	No
		Zinc (Zn)	0.067%	0.05%	No
Spectrum Group, Division of United Industries Corp. St. Louis, Missouri	12-5-7 Ultra Vigoro All Purpose Plant Food	Total Nitrogen (N)	10.9%	12%	Yes
		Available Phosphate (P ₂ O ₅)	5.62%	5%	No
		Soluble Potash (K ₂ O)	7.76%	7%	No
		Boron (B)	0.047%	0.02%	No
		Copper (Cu)	0.14%	0.05%	No
		Iron (Fe)	2.37%	0.1%	No
		Manganese (Mn)	0.21%	0.05%	No
		Molybdenum (Mo)	0.002%	0.0005%	No
		Zinc (Zn)	0.48%	0.05%	No

Oregon Department of Agriculture Fertilizer Program

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Sun Bulb Company, Inc. Arcadia, Florida	11-35-15 Better-Gro Orchid Bloom Booster Water Soluble Orchid Food	Total Nitrogen (N)	11.6%	11%	No
		Available Phosphate (P ₂ O ₅)	35.8%	35%	No
		Soluble Potash (K ₂ O)	15.7%	15%	No
		Magnesium (Mg)	0.79%	0.6%	No
		Boron (B)	0.021%	0.02%	No
		Copper (Cu)	0.067%	0.05%	No
		Iron (Fe)	0.11%	0.10%	No
		Manganese (Mn)	0.053%	0.05%	No
		Molybdenum (Mo)	0.0006%	0.0005%	No
		Zinc (Zn)	0.071%	0.05%	No
TerraCycle Trenton, New Jersey	0.03-0.002-0.02 Orchid Plant Food	Total Nitrogen (N)	0.015%	0.03%	No
		Available Phosphate (P ₂ O ₅)	0.24%	0.002%	No
		Soluble Potash (K ₂ O)	0.45%	0.02%	No
Voluntary Purchasing Groups, Inc. Bonham, Texas	Hi-Yield 0-45-0 Triple Super Phosphate	Available Phosphate (P ₂ O ₅)	47.6%	45%	No
Westbridge Vista, California	Organic BioLink Cal Plus 6% Ca	Calcium (Ca)	6.52%	6%	No
		Humic Acid	0.566%	0.5%	No
	3-3-3 Organic BioLink All-Purpose Fertilizer	Total Nitrogen (N)	3.8%	3%	No
		Available Phosphate (P ₂ O ₅)	3.24%	3%	No
		Soluble Potash (K₂O)	1.48%	3%	Yes
		Magnesium (Mg)	0.632%	0.5%	No
		Copper (Cu)	0.0455%	0.05%	No
		Iron (Fe)	0.281%	0.1%	No
		Manganese (Mn)	0.128%	0.05%	No
		Molybdenum (Mo)	0.00057%	0.0005%	No
		Zinc (Zn)	0.14%	0.1%	No
Western Farm Service Fresno, California	First Choice 10-0-0 CalMax	Total Nitrogen (N)	9.96%	10%	No
		Calcium (Ca)	12%	10.6%	No
		Magnesium (Mg)	1.57%	1.2%	No
		Boron (B)	0.0558%	0.05%	No
		Copper (Cu)	0.0489%	0.05%	No
		Iron (Fe)	0.133%	0.1%	No
		Manganese (Mn)	0.111%	0.1%	No
		Molybdenum (Mo)	0.0006%	0.001%	No
		Zinc (Zn)	0.0796%	0.05%	No
Wilbur-Ellis Company Yakima, Washington	Foli-Gro Zinc 10%	Sulfur (S)	5.13%	5%	No
		Zinc (Zn)	12.8%	10%	No
	ProNatural Iron Complexed Micronutrient	Iron (Fe)	5.73%	5%	No

Oregon Department of Agriculture Fertilizer Program

Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
Wilbur-Ellis Company Yakima, Washington	0-24-0 Mora-Leaf 24	Available Phosphate (P₂O₅)	18.6%	24%	Yes
		Calcium (Ca)	26%	20%	No
		Sulfur (S)	6.23%	6%	No
		Chlorine (Cl) Maximum	0.40%	0.2%	Yes
		Zinc (Zn)	15.4%	12%	No
Zinc Nacional S. A. c/o Monterey Ag Resources Fresno, California	Maximo 362 Zinc Sulfate Granular	Zinc (Zn)	36.1%	35.5%	No