

# Oregon Department of Agriculture

## Fertilizer Program

### Laboratory Analysis Results

January 1 – December 31, 2009

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?
Advanced Nutrients Brandenburg, Kentucky	0-15-40 Big Bud	Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	16.7%	15%	No
		Soluble Potash (K <sub>2</sub> O)	40.4%	40%	No
		Magnesium (Mg)	0.0148%	7%	YES
		L-Alanine	0.348%	0.3%	No
		L-Arginine	0.194%	0.8%	YES
		L-Aspartic Acid	0.770%	1.2%	YES
		L-Glutamic Acid	1.23%	0.4%	No
		L-Glycine	0.146%	0.7%	YES
		L-Histidine	0.132%	0.4%	YES
		L-Isoleucine	0.475%	1.1%	YES
		L-Leucine	0.747%	0.9%	YES
		L-Lysine	0.624%	0.2%	No
		L-Phenylalanine	0.239%	0.6%	YES
		L-Proline	0.394%	0.7%	YES
		L-Serine	0.381%	0.4%	No
L-Threonine	0.504%	0.3%	No		
L-Tyrosine	0.209%	1.3%	YES		
L-Valine	.413%	1.1%	YES		

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Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
Agrium Advanced Technologies (U.S.), Inc. Brantford, Ontario	44.5-0-0 Resin Coated Urea Polymer Coated Urea (PCU)	Total Nitrogen (N)	45.5%	44.5%	No
Ag West Supply Rickreall, Oregon	16-20-0	Total Nitrogen (N)	15.7%	16%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	22%	20%	No
	0-45-0	Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	45%	45%	No
		Calcium (Ca)	17.8%	15.5%	No
46-0-0	Total Nitrogen (N)	46.4%	46%	No	
Al's Garden Center Woodburn, Oregon	20-9-20 Water Soluble All Purpose Fertilizer with Micro-Nutrients	Total Nitrogen (N)	19.5%	20%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	9.19%	9%	No
		Soluble Potash (K <sub>2</sub> O)	21.4%	20%	No
		Sulfur (S)	1.74%	1.4%	No
		Boron (B)	0.0186%	0.02%	No
		Copper (Cu)	0.0176%	0.02%	No
		Iron (Fe)	0.116%	0.1%	No
		Manganese (Mn)	0.0368%	0.04%	No
		Molybdenum (Mo)	0.0131%	0.015%	No
		Zinc (Zn)	0.0208%	0.02%	No
	7-5-4 Transplanting Fertilizer	Total Nitrogen (N)	7.08%	7%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	4.43%	5%	No
		Soluble Potash (K <sub>2</sub> O)	4.98%	4%	No
		Calcium (Ca)	11.7%	9.78%	No
		Magnesium (Mg)	6.07%	6.12%	No
		Sulfur (S)	6.29%	3.78%	No
		Boron (B)	0.0736%	0.0496%	No
		Copper (Cu)	0.0731%	0.05%	No
		Iron (Fe)	0.749%	0.2992%	No
		Manganese (Mn)	0.152%	0.1248%	No
	Molybdenum (Mo)	0.00217%	0.001%	No	
	Zinc (Zn)	0.123%	0.1168%	No	
	10-4-8 All Purpose Slow Release Fertilizer with Micro-Nutrients	Total Nitrogen (N)	8.1%	10%	YES
Available Phosphate (P <sub>2</sub> O <sub>5</sub> )		4.35%	4%	No	
Soluble Potash (K <sub>2</sub> O)		9.53%	8%	No	
Calcium (Ca)		10.3%	9%	No	
Magnesium (Mg)		4.32%	3.6%	No	
Sulfur (S)		7.55%	5.56%	No	
Boron (B)		0.167%	0.1426%	No	
Copper (Cu)		0.148%	0.1426%	No	
Iron (Fe)		2.86%	2%	No	
Manganese (Mn)		0.634%	0.3588%	No	
Zinc (Zn)	0.431%	0.335%	No		
Annie's Plant Food Birkenfeld, Oregon	6-7-8 Annie's Plant Food	Total Nitrogen (N)	5.36%	6%	YES
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	5.55%	7%	YES
		Soluble Potash (K <sub>2</sub> O)	6.9%	8%	YES
		Calcium (Ca)	1.12%	1.28%	No
		Iron (Fe)	2.88%	1.33%	No

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Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
Aqua-Aid, Inc. Rocky Mount, North Carolina	Verde-Cal G Enhanced Gypsum Coarse	Calcium (Ca)	22.4%	17%	No
		Sulfur (S)	16.3%	14%	No
		Gypsum (CaSO <sub>4</sub> • 2H <sub>2</sub> O)	87.6%	70%	No
		% Passing 100 Mesh Sieve	82.6%	50%	No
		% Passing 40 Mesh Sieve	89.7%	75%	No
		% Passing 20 Mesh Sieve	91.3%	90%	No
		% Passing 10 Mesh Sieve	97%	97%	No
	Verde-Cal Coarse Enhanced Calcitic Limestone	Calcium (Ca)	38.6%	38%	No
		Calcium Carbonate (CaCO <sub>3</sub> )	94.9%	95%	No
		Calcium Carbonate Equivalent (CCE)	94.9%	95%	No
		% Passing 100 Mesh Sieve	90.8%	95%	No
		% Passing 40 Mesh Sieve	96.9%	100%	No
		% Passing 20 Mesh Sieve	97.4%	100%	No
		% Passing 10 Mesh Sieve	99.5%	100%	No
Lime Score	91.5	80	No		
Moisture (Maximum)	1.44%	< 15%	No		
Aurora Innovations, Inc. Eugene, Oregon	0-5-4 HKP Roots Organics by Aurora Innovations	Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	6.83%	5%	No
		Soluble Potash (K <sub>2</sub> O)	3.59%	4%	No
Basin Fertilizer & Chemical Co. Merrill, Oregon	11-52-0	Total Nitrogen (N)	10.6%	11%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	52%	52%	No
	16-20-0	Total Nitrogen (N)	15.35%	16%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	22.5%	20%	No
		Sulfur (S)	14.3%	13%	No
	20-0-0-24(S)	Total Nitrogen (N)	20.8%	20%	No
		Sulfur (S)	26.5%	24%	No
	Tiger 90 Sulfur	Sulfur (S)	89.9%	90%	No
Bonide Products, Inc. Oriskany, New York	Liquid Iron + Micronutrients	Magnesium (Mg)	0.115%	0.5%	YES
		Boron (B)	0.0247%	0.02%	No
		Copper (Cu)	0.242%	0.25%	No
		Iron (Fe)	5.21%	5%	No
		Manganese (Mn)	0.334%	0.25%	No
		Zinc (Zn)	0.736%	0.5%	No
Botanicare Chandler, Arizona	Calplex Organic Based Calcium Supplement	Calcium (Ca)	3%	3%	No
	Huvega Plant Supplement Natural Magnesium Formula	Magnesium (Mg)	1.1%	1%	No
	Humega Plant Supplement Natural and Organic Soil Conditioner	Humic Acid	3.8%	4%	No

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<b>Botanicare</b> Chandler, Arizona	6-0-0 Nitrex Organic Based Nitrogen Supplement	Total Nitrogen (N)	5.8%	6%	No
<b>Canadian Agri Products (USA) Corp.</b> Plano, Texas	FS/ 30 Ferrous Sulphate (Monohydrate)	Sulfur (S)	18.5%	18%	No
		Iron (Fe)	31.7%	30%	No
<b>Dyna-Gro</b> Richmond, California	7-8-6 Liquid Orchid-Pro Plant Food	Total Nitrogen (N)	7.11%	7%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	8.62%	8%	No
		Soluble Potash (K <sub>2</sub> O)	5.96%	6%	No
		Calcium (Ca)	2.13%	2%	No
		Magnesium (Mg)	0.643%	0.5%	No
		Boron (B)	0.0246%	0.02%	No
		Chlorine (Cl)	0.247%	0.1%	No
		Copper (Cu)	0.0575%	0.05%	No
		Iron (Fe)	0.117%	0.1%	No
		Manganese (Mn)	0.0446%	0.05%	No
		Molybdenum (Mo)	0.00088%	0.0009%	No
		Sodium (Na)	0.231%	0.1%	No
	Zinc (Zn)	0.0555%	0.05%	No	
	7-9-5 Liquid Grow Plant Food	Total Nitrogen (N)	7.3%	7%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	9.46%	9%	No
		Soluble Potash (K <sub>2</sub> O)	5.1%	5%	No
		Calcium (Ca)	1.96%	2%	No
		Magnesium (Mg)	0.782%	0.5%	No
		Boron (B)	0.0243%	0.02%	No
		Chlorine (Cl)	0.202%	0.1%	No
		Copper (Cu)	0.0502%	0.05%	No
		Iron (Fe)	0.117%	0.1%	No
Manganese (Mn)		0.0444%	0.05%	No	
<b>E. B. Stone &amp; Son, Inc.</b> Suisun, California	0-0-20 Sul Po Mag	Soluble Potash (K <sub>2</sub> O)	21.7%	20%	No
		Magnesium (Mg)	11.5%	10%	No
Sulfur (S)		23.7%	21%	No	
5-5-5 E. B. Stone Organics All-Purpose Plant Food	Total Nitrogen (N)	4.93%	5%	No	
	Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	4.33%	5%	No	
	Soluble Potash (K <sub>2</sub> O)	5.55%	5%	No	
	Calcium (Ca)	17.1%	7%	No	
	Sulfur (S)	3.4%	1%	No	
	Humic Acid	8.31%	1.3%	No	
<b>Espoma Company</b> Millville, New Jersey	3-4-6 Tomato-Tone	Total Nitrogen (N)	2.52%	3%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	3.88%	3%	No
		Soluble Potash (K <sub>2</sub> O)	6.38%	6%	No
		Calcium (Ca)	8.91%	5%	No
		Magnesium (Mg)	1.28%	1%	No
		Sulfur (S)	4.2%	3%	No

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Company	Product	Element	Lab Analysis	Label Guarantee	Violation?		
Farmer John's Organic Fertilizer La Grande, Oregon	0.10-0-0.02 Batwana Bloomer "Handpicked"	Total Nitrogen (N)	0.191%	0.1%	No		
		Soluble Potash (K <sub>2</sub> O)	0.49%	0.02%	No		
Frit Industries Ozark, Alabama	F-503 G-OR	Boron (B)	1.28%	2.4%	YES		
		Copper (Cu)	2.18%	2.4%	No		
		Iron (Fe)	21.8%	14.4%	No		
		Manganese (Mn)	2.9%	6%	YES		
		Molybdenum (Mo)	0.0257%	0.06%	YES		
		Zinc (Zn)	6%	5.6%	No		
	F-603 G OR	Boron (B)	0.973%	1.3%	YES		
		Copper (Cu)	3.32%	2.7%	No		
		Iron (Fe)	6%	5.3%	No		
		Manganese (Mn)	2.43%	2.7%	No		
		Molybdenum (Mo)	0.0479%	0.03%	No		
		Zinc (Zn)	3%	9.16%	No		
		Grange Cooperative Supply Central Point, Oregon	9-3-6-18(S) Green-Up	Total Nitrogen (N)	8.98%	9%	No
				Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	3.41%	3%	No
Soluble Potash (K <sub>2</sub> O)	8.62%			6%	No		
Sulfur (S)	20.8%			18%	No		
Iron (Fe)	10.5%			10%	No		
15-5-10-14 with Trace Elements	Total Nitrogen (N)		16.6%	15%	No		
17-15-14-8 Floral Gold 50% Slow Release Plant Food	50% Slow Release Plant Food	Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	4.74%	5%	No		
		Soluble Potash (K <sub>2</sub> O)	10.9%	10%	No		
		Sulfur (S)	19.2%	14%	No		
		Boron (B)	0.0497%	0.04%	No		
		Copper (Cu)	0.09%	0.1%	No		
		Iron (Fe)	1.04%	0.2%	No		
		Manganese (Mn)	0.157%	0.12%	No		
		Zinc (Zn)	0.16%	0.1%	No		
		Total Nitrogen (N)	13.5%	17%	YES		
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	14.7%	15%	No		
		Soluble Potash (K <sub>2</sub> O)	19.7%	14%	No		
		Magnesium (Mg)	1.26%	0.6%	No		
		Sulfur (S)	12.5%	8%	No		
	Boron (B)	0.737%	0.06%	No			
Copper (Cu)	0.0606%	0.685%	YES				
Iron (Fe)	1.05%	0.4%	No				
Manganese (Mn)	0.246%	0.16%	No				
Molybdenum (Mo)	0.001%	0.002%	YES				
Zinc (Zn)	0.184%	0.14%	No				
Hydro-Organics Wholesale Chico, California	Earth Juice Microblast Liquid Micronutrients	Magnesium (Mg)	0.507%	0.5%	No		
		Boron (B)	0.0213%	0.02%	No		
		Cobalt (Co)	0.00061%	0.0005%	No		
		Iron (Fe)	0.128%	0.1%	No		
		Manganese (Mn)	0.0447%	0.05%	No		
		Molybdenum (Mo)	0.00074%	.0005%	No		
		Zinc (Zn)	0.04%	0.05%	No		

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Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
<b>Ironite Products Company</b> Salem, Virginia	7-6-6 Ironite Plus Liquid Plant & Flower Food	Total Nitrogen (N)	7.09%	7%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	6.29%	6%	No
		Soluble Potash (K <sub>2</sub> O)	6.38%	6%	No
		Sulfur (S)	1.11%	0.9%	No
		Boron (B)	0.0214%	0.02%	No
		Iron (Fe)	0.256%	0.1%	No
<b>J. R. Simplot Company</b> Lathrop, California	4.5-0-0 N-Boron	Total Nitrogen (N)	6.9%	4.5%	No
		Boron (B)	5.8%	5.4%	No
	11-52-0 Monoammonium Phosphate / Rock Springs	Total Nitrogen (N)	11%	11%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	51.5%	52%	No
		Sulfur (S)	2.16%	1.8%	No
<b>Lilly Miller Brands</b> Salem, Virginia	5-1-1 Alaska Fish Fertilizer	Total Nitrogen (N)	4.49%	5%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	1.23%	1%	No
		Soluble Potash (K <sub>2</sub> O)	0.34%	1%	YES
<b>Liquinox Company</b> Orange, California	5-1-1 Fish Emulsion All-Purpose Fish Fertilizer	Total Nitrogen (N)	4.79%	5%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	0.852%	1%	No
		Soluble Potash (K <sub>2</sub> O)	0.23%	1%	YES
<b>Loveland Products, Inc.</b> Greeley, Colorado	Signature StarLine 10% Calcium	Calcium (Ca)	10.8%	10%	No
<b>Martrex, Inc.</b> Minnetonka, Minnesota	Zinc Sulfate Monohydrate Powder	Sulfur (S)	17.5%	17%	No
		Zinc (Zn)	38.9%	35%	No
<b>Monterey AgResources</b> Fresno, California	Coarse Granular Ferrous Sulfate Monohydrate	Sulfur (S)	19.9%	18.3%	No
		Iron (Fe)	33%	30%	No
	Hi-Lo Granular Zinc Sulfate 35.5%	Sulfur (S)	17.9%	17.5%	No
		Zinc (Zn)	37.5%	35.5%	No
<b>Monty's Plant Food Co.</b> Louisville, Kentucky	8-16-8 Monty's Joy Juice Growth Formula Liquid Plant Food	Total Nitrogen (N)	7.83%	8%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	17%	16%	No
		Soluble Potash (K <sub>2</sub> O)	9.17%	8%	No
<b>North Pacific</b> Clackamas, Oregon	9-3-7 PAR 4 Granulated Natural Fertilizer	Total Nitrogen (N)	8.69%	9%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	3.5%	3%	No
		Soluble Potash (K <sub>2</sub> O)	8.06%	7%	No
<b>Northwest Agricultural Products</b> Pasco, Washington	Zinc-Chelate 10%	Zinc (Zn)	10.7%	10%	No

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<b>Northwest Agricultural Products</b> Pasco, Washington	Agro-Lig 1 Native Crude Humic Acids	Calcium (Ca)	2.11%	3%	<b>YES</b>
		Magnesium (Mg)	0.765%	1.5%	<b>YES</b>
		Sulfur (S)	1.65%	1%	No
		Boron (B)	0.0499%	0.03%	No
		Copper (Cu)	0.0131%	0.01%	No
		Iron (Fe)	0.845%	0.8%	No
		Manganese (Mn)	0.0143%	1%	<b>YES</b>
		Zinc (Zn)	0.00112%	0.05%	<b>YES</b>
		Humic Acid	70.1%	86%	<b>YES</b>
<b>Northwest Nursery Buyers Association</b> Rhododendron, Oregon	Northwest Best 15-5-25 Fall & Winter Lawn Food	Total Nitrogen (N)	15.4%	15%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	6.97%	5%	No
		Soluble Potash (K <sub>2</sub> O)	26.6%	25%	No
		Sulfur (S)	3.6%	1.7%	No
		Boron (B)	0.041%	0.048%	No
		Copper (Cu)	0.04%	0.05%	No
		Iron (Fe)	2.51%	2%	No
		Manganese (Mn)	0.149%	0.12%	No
		Molybdenum (Mo)	0.00126%	0.001%	No
		Zinc (Zn)	0.114%	0.112%	No
<b>Ostara Nutrients USA, Inc.</b> Vancouver, British Columbia	5-27-0 + 10% Mg Crystal Green Slow Release Fertilizer	Total Nitrogen (N)	4.79%	5%	No
		Total Phosphorus (P)	13.2%	28%	<b>YES</b>
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	29%	27%	No
		Magnesium (Mg)	10.6%	10%	No
<b>Prince Minerals</b> Quincy, Illinois	Granusol Iron	Iron (Fe)	55.1%	50%	No
<b>QC Corporation</b> Baltimore, Maryland	Diamond Ferrous Sulfate Heptahydrate Other Than USP Grade (With Anti-Caking)	Iron (Fe)	22.6%	20%	No
<b>Round Butte Seed Growers, Inc.</b> Culver, Oregon	Super Grow Lower Valley Turf 21-7-14-4(S) 1.5% (Fe) 80% Slow Release N	Total Nitrogen (N)	21%	21%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	9.57%	7%	No
		Soluble Potash (K <sub>2</sub> O)	14.6%	14%	No
		Sulfur (S)	5.87%	4%	No
		Iron (Fe)	2.43%	1.5%	No
<b>Simplot Grower Solutions</b> Halsey, Oregon	0-0-62	Soluble Potash (K <sub>2</sub> O)	61.9%	62%	No
	11-52-0	Total Nitrogen (N)	10.8%	11%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	52.3%	52%	No
		Sulfur (S)	1.57%	2%	<b>YES</b>
	16-20-0	Total Nitrogen (N)	15.8%	16%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	21.3%	20%	No
		Sulfur (S)	14.6%	13%	No

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<b>Simplot Grower Solutions</b> Halsey, Oregon	20-0-0-24(S)	Total Nitrogen (N)	19.9%	20%	No
		Sulfur (S)	24%	24%	No
		Zinc (Zn)	1.16%	0.9%	No
<b>Spectrum Group Division of United Industries</b> St. Louis, Missouri	24-8-16 Peters Professional All Purpose Plant Food Water Soluble with Micronutrients	Total Nitrogen (N)	25%	24%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	8.53%	8%	No
		Soluble Potash (K <sub>2</sub> O)	18.1%	16%	No
		Boron (B)	0.0249%	0.02%	No
		Copper (Cu)	0.0735%	0.07%	No
		Iron (Fe)	0.165%	0.15%	No
		Manganese (Mn)	0.04%	0.05%	No
		Molybdenum (Mo)	0.00063%	0.0005%	No
Zinc (Zn)	0.0925%	0.06%	No		
<b>SQM North America</b> Atlanta, Georgia	16-0-0 Champion Sodium Nitrate Prilled	Total Nitrogen (N)	15.4%	16%	No
		Chlorine (Cl) (Max)	0.2%	1%	No
	16-0-0 Allganic Natural Nitrate of Soda Prilled	Total Nitrogen (N)	15.4%	16%	No
<b>Terra Nitrogen Corporation</b> Sioux City, Iowa	32-0-0 Terra Nitrogen Solution	Total Nitrogen (N)	31.12%	32%	No
<b>Tiger-Sul Products (Canada) Company</b> Calgary, Alberta	Tiger Micronutrients Sulphur 55% + Iron 22%	Sulfur (S)	57.6%	55%	No
		Iron (Fe)	21.5%	22%	No
<b>Tiger-Sul Products LLC</b> Atmore, Alabama	Tiger 90CR Sulphur Agricultural Sulphur	Sulfur (S)	90.4%	90%	No
<b>Two Rivers Terminal, LLC</b> Pasco, Washington	Zinc Sulfate - Granular	Sulfur (S)	17%	17%	No
		Zinc (Zn)	39.7%	35%	No
<b>Valudor Products, Inc.</b> Rancho Santa Fe, California	Manganese Sulfate Monohydrate	Sulfur (S)	20.5%	18%	No
		Manganese (Mn)	35.6%	31.5%	No
<b>Vogel Seed &amp; Fertilizer</b> Jackson, Wisconsin	Spring Valley 24-0-6	Total Nitrogen (N)	23.4%	24%	No
		Soluble Potash (K <sub>2</sub> O)	6.34%	6%	No
		Sulfur (S)	1.91%	1.45%	No
<b>Voluntary Purchasing Groups, Inc.</b> Bonham, Texas	9-13-7 ferti-lome New Lawn Starter	Total Nitrogen (N)	8.75%	9%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	11.9%	13%	YES
		Soluble Potash (K <sub>2</sub> O)	7.53%	7%	No
		Boron (B)	0.0177%	0.02%	No
		Copper (Cu)	0.0286%	0.05%	YES
		Iron (Fe)	2%	0.1%	No
		Manganese (Mn)	0.42%	0.05%	No
Zinc (Zn)	0.0285%	0.05%	YES		



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Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
<b>Voluntary Purchasing Groups, Inc.</b> Bonham, Texas	19-6-12 ferti-lome Start-N-Grow Premium Plant Food	Total Nitrogen (N)	17.5%	19%	<b>YES</b>
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	7.78%	6%	No
		Soluble Potash (K <sub>2</sub> O)	13.7%	12%	No
		Boron (B)	0.03%	0.02%	No
		Copper (Cu)	0.0504%	0.05%	No
		Iron (Fe)	1.42%	0.25%	No
		Manganese (Mn)	0.0688%	0.05%	No
		Zinc (Zn)	0.0543%	0.05%	No
	Natural Guard Lawn & Garden Soil Activator	Humic Acid	44.2%	70%	<b>YES</b>
	<b>Wilco-Winfield LLC</b> Mt. Angel, Oregon	35-0-15	Total Nitrogen (N)	34.2%	35%
Soluble Potash (K <sub>2</sub> O)			14.6%	15%	No
11-52-0		Total Nitrogen (N)	11.5%	11%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	52.1%	52%	No
40-0-0-6		Total Nitrogen (N)	39.6%	40%	No
		Sulfur (S)	5.98%	6%	No
20-0-0 Ammonium Sulfate		Total Nitrogen (N)	20.1%	20%	No
		Sulfur (S)	24.7%	24%	No
<b>Woodburn Fertilizer</b> Woodburn, Oregon	0-0-50 Sulfate of Potash	Soluble Potash (K <sub>2</sub> O)	50.5%	50%	No
		Sulfur (S)	20%	17%	No
	0-0-60 Muriate of Potash	Soluble Potash (K <sub>2</sub> O)	60.5%	60%	No
	11-52-0 Monoammonium Phosphate	Total Nitrogen (N)	10.8%	11%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	51.5%	52%	No
		Sulfur (S)	2.09%	1.8%	No
	18-46-0 Diammonium Phosphate	Total Nitrogen (N)	17.5%	18%	No
		Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	45.6%	46%	No
		Sulfur (S)	2.34%	2%	No
	27-0-0 Calcium Ammonium Nitrate	Total Nitrogen (N)	26.8%	27%	No
		Calcium (Ca)	4.68%	4%	No
		Magnesium (Mg)	3.11%	1%	No
	Gran-U-Bor Sodium Borate Granular	Boron (B)	15.2%	14.3%	No
	Pelletized Dolomite	Calcium (Ca)	26.4%	21%	No
		Magnesium (Mg)	16.3%	13%	No
Calcium Carbonate (CaCO <sub>3</sub> )		52.8%	50%	No	
Calcium Carbonate Equivalent (CCE)		88.1%	102%	<b>YES</b>	
Magnesium Carbonate (MgCO <sub>3</sub> )		36%	40%	No	
% Passing 100 Mesh Sieve		88%	70%	No	
% Passing 40 Mesh Sieve		98.6%	80%	No	
% Passing 20 Mesh Sieve		99.8%	98%	No	
% Passing 10 Mesh Sieve		100%	99%	No	
Lime Score		89	91	No	
Moisture (Maximum)		0.16%	< 2%	No	

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Company	Product	Element	Lab Analysis	Label Guarantee	Violation?
Woodburn Fertilizer Woodburn, Oregon	Pelletized Lime	Calcium Carbonate (CaCO <sub>3</sub> )	84.8%	86%	No
		Calcium Carbonate Equivalent (CCE)	90.5%	86%	No
		Magnesium Carbonate (MgCO <sub>3</sub> )	1.26%	1.4%	No
		% Passing 100 Mesh Sieve	91.9%	89%	No
		% Passing 40 Mesh Sieve	99.3%	99%	No
		% Passing 20 Mesh Sieve	99.8%	100%	No
		% Passing 10 Mesh Sieve	100%	100%	No
		Lime Score	89.89	90	No
		Moisture (Maximum)	0.33%	< 2%	No
		4.9-3.3-2.8 100% Natural Organic DPW	Total Nitrogen (N)	3.89%	4.9%
	Available Phosphate (P <sub>2</sub> O <sub>5</sub> )		4.85%	3.3%	No
	Soluble Potash (K <sub>2</sub> O)		2.75%	2.8%	No
	Calcium (Ca)		18.8%	8.7%	No
	Magnesium (Mg)		0.866%	0.5%	No
		Iron(Fe)	0.09%	0.1%	No