

*The  
Connecticut  
Agricultural  
Experiment  
Station,  
New Haven*

**Analysis of  
Fertilizers Sold  
in Connecticut  
1998**

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From January 1, 1998 through December 31, 1998 the Department of Analytical Chemistry at The Connecticut Agricultural Experiment Station analyzed 173 fertilizers offered for sale in the state. The analyses determine that the products are in accordance with stated label guarantees. Samples included products intended for commercial agricultural operations as well as products for household use. The samples were collected by John Schneider of the Connecticut Department of Agriculture and were analyzed by Craig Musante and Mamie Pyles under the direction of Dr. David Stilwell.

In the present survey 31 manufacturers were represented. A total of 86 (49.7%) samples were found to be deficient. Specifically, 10 (5.8%) were deficient in nitrogen, 10 (5.8%) were deficient in phosphorus, 63 (36.4%) were deficient in potassium. Of the 42 samples analyzed for micronutrients, 14 (33.3%) were deficient in one or more of the micronutrients. A parameter is considered to be unsatisfactory if the value is below the guaranteed value by more than the permissible percentage established by the Association of American Plant Food Control Officials. The results are summarized in the accompanying table. Deficiencies are indicated by a minus (-) sign next to the found percent value shown in the columns headed by %F or next to the micronutrient values. The label guarantee is provided in the columns headed by %G.

**Table 1. Analysis of Fertilizer Products**

Manufacturer & Product Name	Nitrogen		P <sub>2</sub> O <sub>5</sub>		K <sub>2</sub> O	
	%G	%F	%G	%F	%G	%F
<b>A.H. HOFFMAN, INC.</b>						
Country Cottage Start & Bloom	10	11	52	50.5-	10	9.8
Hoffman Holly Food	4	4.2	6	8.4	4	3.8
<b>AGRI TURF, INC.</b>						
Agriturf Garden & Lawn Food	5	7.2	10	14.4	5	6.2
Agriturf Premium Fertilizer	10	14.2	10	13.7	10	7.5-
Agriturf Seed & Sod Starter	14	13.9	21	23.2	16	13.4-
<b>AGWAY, INC.</b>						
Agway Blend Rite	5	5	10	8.9-	10	10.5
Agway Blend Rite	10	13.3	10	14.5	10	10.4
Agway Blend-Rite	15	17.9	8	9	12	11.1-
Agway Blend-Rite	10	10	20	19.8	20	16.9-
Agway Blend-Rite	10	12.8	10	9.8	10	9.6
Agway Blend-Rite	15	16.2	15	16.4	15	12.2-
Agway Blend-Rite Alfa-B with Boron	0	0.26	10	9.9	40	34.3-
Agway Bulk Blend	24	24.2	12	12.7	18	20.4
Agway Bulk Blend	7	9.1	3	4.2	10	5.3-
Agway Bulk Blend	18	19.5	18	20	18	20.5
Agway Bulk Blend	24	28.6	12	13.7	18	18.8
Agway Bulk Blend	23	29.2	12	12.3	18	19.1
Agway Bulk Blend	23	26.3	12	13.6	18	16.6-
Agway Bulk Blend	24	24.5	12	13.2	18	17.6
Agway Bulk Blend	24	28.4	12	12.5	18	14.6-
Agway Bulk Blend	23	23.5	12	12.5	18	18.7
Agway Bulk Blend	23	22.7	9	10.1	21	21.8
Agway Bulk Blend	28	29.9	3	3.56	19	19.8
Agway Bulk Blend	24	23.1-	12	18.4	18	15.6-
Agway Bulk Blend	24	24.3	12	13.8	18	18.5
Agway Bulk Blend	4	5.27	0		5	5.72
Agway Bulk Blend	23	26.9	12	14.9	18	13.8-
Agway Bulk Blend	23	25.8	12	12.3	18	14-
Agway Bulk Blend	24	19.4-	12	15.6	18	20.9
Agway Bulk Blend	28	31.8	12	14.9	11	9.22-
Agway Bulk Blend	28	32.8	4	4.45	19	14.6-
Agway Bulk Blend	28	32.2	0		22	21.3
Agway Bulk Blend	23	23.7	12	15.2	18	18.7
Agway Bulk Blend	10	14.8	0		13	12.3
Agway Bulk Blend	10	11.8	20	22.5	10	8.4-
Agway Bulk Blend	35	36.8	0		13	10.8-
Agway Bulk Blend	37	37.6	0		11	7-
Agway Bulk Blend	14	16.6	20	26.9	22	18.1-
Agway Bulk Blend	25	28.5	8	10.7	20	15.9-
Agway Bulk Blend	27	29.5	8	9.34	16	17.9
Agway Bulk Blend	30	33.4	9	9.87	12	10.7-
Agway Bulk Blend	21	20.8	8	8.64	24	25.6
Agway Bulk Blend	7	8.9	2	4.9	10	14.7
Agway Bulk Blend	34	35.7	6	6.35	10	9.34

**Table 1. Analysis of Fertilizer Products**

Manufacturer & Product Name	Nitrogen		P <sub>2</sub> O <sub>5</sub>		K <sub>2</sub> O	
	%G	%F	%G	%F	%G	%F
Agway Bulk Blend	37	38.9	5	6.7	5	6.6
Agway Bulk Blend	24	24.6	15	17.2	14	16.1
Agway Early Edge Blended Starter	10	10	20	19.7	10	9.4
Agway Greenlawn Fertilizer	32	33.4	3	3.5	5	4.4-
Agway Stage 4 Winterizer Fertilizer	25	32.5	3	2.6	13	8.9-
Agway Super Greenlawn	21	20.8	7	8.6	14	12.9-
Agway Tobacco	5	5.19	2	1.77	5	4.7
<b>CADWELL &amp; JONES</b>						
C&J	5	6.7	10	13.2	10	11.3
C&J	19	19.3	19	18.6	19	18
C&J	15	18.3	3	4.4	30	24.4-
C&J	10	11.8	10	15	10	10
C&J Seed Booster	18	19.9	23	23.2	12	9.1-
C&J Surge	7	10.2	7	4.3-	7	4.9-
<b>CROP PRODUCTION SERVICES NY</b>						
Allen Seed Store Fe Milorganite	12	11.8	1	1.6	12	16.3
CPS	24	26.1	12	14.7	18	16.1-
CPS	10	17.7	10	18.2	10	11.4
CPS	10	10.4	20	21.5	20	14.5-
CPS	10	14.3	20	29.4	10	12.4
CPS	15	18.3	15	14.4	15	19.8
CPS	19	18.8	19	23.9	19	16.1-
CPS	15	14.6	8	8.2	12	10.3-
CPS	19	21.6	0		17	18
CPS 60% Slow Release N	19	26.2	10	15.4	14	14.1
CPS Bulk Blend	16	7.98-	0		40	15.7-
CPS Bulk Blend	26	26.7	0		26	24.8
CPS Bulk Blend	27	31.8	7	7.27	18	14.2-
CPS Bulk Blend	13.66	15	0		7.37	7.4
CPS Bulk Blend	16	9.27-	0		40	16.8-
CPS Bulk Blend	16	8.95-	0		40	18-
CPS Bulk Blend	15	15	15	18.2	15	15.3
CPS Bulk Blend	10	13.9	10	15.4	10	12.2
CPS Bulk Blend	16	20.8	0		39	36.1-
CPS Custom Tobacco Mix	10	10.54	6	6.59	7.5	7.69
CPS Organic	5	4.6	4	4.3	8	6.6-
CPS Premium Jump Start	8	9.2	24	24.2	14	11.2-
CPS Tobacco Fertilizer	10	7.5-	8	8.9	10	11.7
CPS with Pellime	18	23.5	2	3.8	22	16-
Village Green Professional Turf Food	10	9.7	6	6.2	4	3.3-
Village Green Professional Turf Food	20	21.2	10	11.9	10	9.8
Village Green Professional Turf Food	5	5.6	10	10.8	5	6.5
Village Green Professional Turf Food	20	20.4	10	11.6	10	9.5
Village Green Professional Turf Food	28	33.3	5	5.7	11	3.4-
Village Green Prof. Turf Food, 50% Slow Release N	18	19.9	11	13.3	17	17.5
Westchester Turf Supply Nutralene Special	22	22.5	0		22	22.6

**Table 1. Analysis of Fertilizer Products**

Manufacturer & Product Name	Nitrogen		P <sub>2</sub> O <sub>5</sub>		K <sub>2</sub> O	
	%G	%F	%G	%F	%G	%F
<b>DECRAAN AG SUPPLIES</b>						
DeCran Deluxe	5	7.7	10	9.1-	10	9.5
DeCran Deluxe	5	5.5	10	9.9	5	3-
DeCran Deluxe	10	10.1	10	11.6	10	7.8-
<b>DRAGON CORP.</b>						
Dragon Plant Starter with Vitamin B-1	3	4.2	12	11.7	4	4.2
<b>FREE-FLOW FERTILIZER</b>						
American Green All-Purpose Plant Food	10	10.5	10	12.1	10	9.6
American Green Lawn Food	29	31.3	3	3.31	4	4.29
Garden Fertilizer	5	5.16	10	10.9	5	4.58
Sam's Choice Lawn Food	29	31.8	3	3.43	4	4.15
True Value Green Thumb Lawn Fertilizer	28	26.9-	4	4.67	8	9.19
<b>GRO-GREEN PRODUCTS</b>						
Gro-Green All Purpose Fertilizer	12	12.49	12	14.9	12	12
Gro-Green Great Gardens	5	6.71	10	13.1	5	5.59
<b>HOWARD JOHNSON'S ENTERPRISE</b>						
NHD Hardware Premium Lawn Fertilizer	30	32.9	4	5.01	6	4.31-
<b>IMC VIGRO</b>						
Vigoro Premium Lawn Fertilizer plus 2% Iron	27	31.9	2	2.63	5	3.6-
Vigoro Premium Starter Lawn Food	20	21.2	25	27.6	10	8.6-
<b>JONATHAN GREEN INC.</b>						
Jonathan Green Green-Up Lawn Fertilizer	30	34	5	6.79	5	6.25
Jonathan Green New Seedling Fertilizer	14	15.6	28	35.6	15	11.8-
Jonathan Green Winter Survival Fall Fertilizer	10	10.2	18	22.8	20	18.2-
<b>KNOX FERTILIZER CO.</b>						
Gro-Fine Spring Starter/Fall Feeder Fertilizer	11	10.9	22	23.5	6	4.12-
<b>LEBANON CHEMICAL CORP.</b>						
Lebanon	5	9.7	10	10.8	10	9.4
Lebanon Fertilizer	10	10.5	10	10	10	9.4
Lebanon Garden Food	5	9.3	10	7.9-	5	4.3-
Lebanon Lawn, Tree & Shrub	10	11.7	6	7.8	4	5.6
Turf Master Lawn Food	27	30.3	3	3.4	3	2.4-
Wondergrow All Purpose Lawn & Garden Pl. Food	13	15.2	13	18.6	13	12.5
Greenview Green Power Lawn Fertilizer	30	30.5	4	4.4	4	4.9
Greenview Green Start Starter Fertilizer	10	12.8	18	16.4-	10	10.2
Greenview Greenpro Fall Grass Food	13	14.2	2.5	25.8	12	11.3
Re-Nu Seed Starter Fertilizer	11	12.6	23	23.2	10	7.8-
<b>LESCO INC.</b>						
Lesco Professional Landscape & Ornamental	14	14.4	14	15.5	14	13.5
Lesco Professional Turf Fertilizer	18	18.3	24	24.8	12	11.8

**Table 1. Analysis of Fertilizer Products**  
**Manufacturer & Product Name**

	Nitrogen		P <sub>2</sub> O <sub>5</sub>		K <sub>2</sub> O	
	%G	%F	%G	%F	%G	%F
Lesco Professional Turf Fertilizer	19	18.9	19	22.1	19	17.2-
Lesco Professional Turf Fertilizer	24	31.8	5	4.7	11	7.5-
Lesco Professional Turf Fertilizer	32	33.8	5	5.04	7	7.38
Lesco Professional Turf Fertilizer	15	15.8	3	3	7	6.8
Lesco Professional Turf Food	24	27.1	5	7.21	11	12.4
<b>LOFT'S, INC.</b>						
Loft's All Purpose Garden Food	5	7.1	10	15.5	5	5.2
Loft's All Purpose Lawn Fertilizer	10	8.2-	6	6.1	4	4.3
Loft's Lawn, Garden & Shrub Food	10	10.9	10	14.9	10	11.5
<b>MILORGANITE DIVISION</b>						
Milorganite	12	11.7	1	2.2	12	14
Milorganite	6	6.4	2	4.3	0	
<b>NUTRICO, INC.</b>						
Custom Turf	20	20.7	5	6.87	10	7.81-
Frank's Fertilizer	33	36.2	4	1.41-	10	7.26-
Mahoney's 100% Organic Fertilizer with Root Help	5	6	5	8.8	5	5.3
Mahoney's All Purpose Organic Based Fertilizer	8	7.8	8	9.6	8	7.6
Mahoney's Garden Center Organic Grow	5	5.22	5	6.67	0	
Nutrigo Professional	15	15.1	10	6.95-	10	10.8
Organic Grow Organic Fertilizer	5	5.11	3	6.75	0	
Salem Country Gardens All Purpose Fertilizer	10	10.3	10	12.4	10	8.39-
Salem Country Gardens Fertilizer	30	31.3	5	4.98	10	8.03-
Salem Country Gardens Garden & Shrub Fertilizer	5	2-	10	14.2	5	5.9
Salem Country Gdns Prem. Fall Lawn Fert. with Iron	10	10.3	20	26.7	12	11.5
Salem Country Gardens Premium Lawn Fertilizer	26	25.6	4	6	6	5.8
Salem Country Gardens Starter Fertilizer	14	5.6-	22	27.7	6	7
Salem Country Gardens Starter Fertilizer	18	19	25	26.7	12	10.3-
Salem Country Gardens Tomato, Shrub & Gdn. Fert.	5	5.9	10	15.8	10	10.1
Salem Country Gardens Tree & Turf Fertilizer	10	8.46	6	8.13	5	2.98-
<b>OCEAN CREST SEAFOOD</b>						
Organic Neptune's Harvest	2	2.8	3	3.7	0.05	0.64
<b>PRO-LAWN PRODUCTS, INC.</b>						
Pro-Lawn Fertilizer	14	16.2	10	10.8	10	9.6
<b>PURSELL INDUSTRIES INC.</b>						
Van Bloem Flower Bulb & Perennial Fertilizer	12	13.9	12	15.9	9	8.1-
<b>RINGER CORP.</b>						
Ringer Lawn Restore	10	10.3	2	2.1	6	5.6
<b>ROOTS, INC., DIV. OF LISA PROD. CORP</b>						
Dry Roots 2	3	6.73	3	7.71	3	4.1

**Table 1. Analysis of Fertilizer Products**

Manufacturer & Product Name	Nitrogen		P <sub>2</sub> O <sub>5</sub>		K <sub>2</sub> O	
	%G	%F	%G	%F	%G	%F
<b>SCHULTZ CO.</b>						
Schultz All Purpose Plant Food Plus	20	20.44	30	32	20	19.4
Schultz Bloom Plus	10	10.3	60	58.2-	10	9.9
<b>SCOTTS/SIERRA HORT. PRODUCTS</b>						
Miracle-Gro Plant Food Spikes						
-All Flowering, Foliage Houseplants	6	6.8	12	14.2	6	6.7
Osmocote Vegetable & Bedding Plant Food	14	14.9	14	14.5	14	12.6-
Scotts Turf Builder Plus Moss Control	16	16.2	2	1.7	3	2.7
Scott's Starter Fertilizer	20	22.4	27	29.6	5	5.31
Scott's Turf Builder	29	30.1	3	3.1	4	5.4
<b>STERN'S MIRACLE-GRO PRODUCTS</b>						
Stern's Miracid Plant Food	30	33	10	11.3	10	9.6
Miracle-Gro All Purpose Lawn Fertilizer	31	34.2	3	4.52	9	9.49
<b>SUSTONE CORP., DIV. OF NATURAL FERT OF AMERICA</b>						
Sustane All Natural Organic Landscaper's Choice Fert.	4	4.8	6	7.6	4	4.3
<b>THE ESPOMA CO.</b>						
Espoma All Organic N Plus Fe	18	21.2	8	11.2	6	2.8-
Espoma Bulb Tone	4	5.7	10	9.9	6	7.9
Espoma Garden Tone	4	5.6	6	6.1	6	6.3
Espoma Holly Tone	4	4.4	6	6.9	4	5.7
Espoma Kelp Meal	1	0.92	0		2	2.5
Espoma Plant Tone	5	7	3	3.9	3	2.9
Espoma Rose Tone	6	7.4	6	6.6	4	4.2
<b>TRU-SERV CORP.</b>						
Green Thumb Premium All Purpose						
Flower & Vegetable Plant Food	12	11.6	8	9.44	8	7.58
Green Thumb Premium Lawn Fertilizer	29	29.7	3	3.8	4	4.29
Green Thumb Seed & Sod Starter Fertilizer	20	20.3	27	30.6	5	4.74
Green Thumb Seed & Sod Starter Fertilizer	15	17.9	2	2.83	3	3.29
<b>WEATHERLY CONSUMER PRODUCTS</b>						
Jobe's Fertilizer Spikes for Container & Bedding Plants	8	11	9	11.2	12	12.6
Ross Fruit Tree Spikes	10	16	13	15.2	13	13.4
Ross Gro-Stakes for Evergreens	10	18.6	10	6.2-	10	7.4-

**Table 2. Micronutrients in Fertilizer Products.  
Manufacturer & Product Name/Micronutrients**

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**A.H. HOFFMAN, INC.**

Country Cottage Start & Bloom--Boron 0.016; Iron 0.091; Manganese 0.045; Zinc 0.041;  
Molybdenum 0.00051

**AGWAY, INC.**

Agway Greenlawn Fertilizer--Sulfur 3.9  
Agway Stage 4 Winterizer Fertilizer--Sulfur 4.7  
Agway Super Greenlawn--Sulfur 7.3; Iron 0.83-; Manganese 0.37-  
Agway Tobacco--Magnesium 2.43; Sulfur 2.92

**CROP PRODUCTION SERVICES (NY)**

Allen Seed Store Fe Milorganite--Iron 2.0  
CPS Bulk Blend--Sulfur 12.4  
CPS Premium Jump Start--Magnesium 2.8; Boron 0.15; Sulfur 6.7; Zinc 1.3

**DRAGON CORP.**

Dragon Plant Starter with Vitamin B-1--Iron 0.19

**FREE-FLOW FERTILIZER**

True Value Green Thumb Lawn Fertilizer--Sulfur 1.24; Iron 1.29

**HOWARD JOHNSON'S ENTERPRISE**

NHD Hardware Premium Lawn Fertilizer--Sulfur 1.78-

**IMC VIGRO**

Vigoro Premium Lawn Fertilizer plus 2% Iron--Iron 1.2-

**JONATHAN GREEN INC.**

Jonathan Green Green-Up Lawn Fertilizer--Sulfur 2.49; Iron 0.37-  
Jonathan Green New Seedling Fertilizer--Sulfur 0.98-; Iron 1.22

**KNOX FERTILIZER CO.**

Gro-Fine Spring Starter/Fall Feeder Fertilizer--

**LEBANON CHEMICAL CORP.**

Greenview Greenpro Fall Grass Food--Sulfur 7.24; Iron 0.9

**LESCO INC.**

Lesco Professional Landscape & Ornamental--Sulfur 12.1-; Iron 0.53; Manganese 1.12  
Lesco Professional Turf Fertilizer--Sulfur 2.1  
Lesco Professional Turf Fertilizer--Sulfur 4.32; Iron 1.9; Manganese 0.57  
Lesco Professional Turf Fertilizer--Sulfur 2-  
Lesco Professional Turf Fertilizer--Sulfur 1.8; Iron 2  
Lesco Professional Turf Food--Sulfur 3.8; Iron 2.6; Manganese 1.04

**MILORGANITE DIVISION**

Milorganite--Iron 2.3  
Milorganite--Iron 4.7



**Table 2. Micronutrients in Fertilizer Products.  
Manufacturer & Product Name/Micronutrients**

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**NUTRICO, INC.**

Organic Grow Organic Fertilizer--Sulfur 1.3-; Iron 2.83  
Salem Country Gardens Starter Fertilizer--Sulfur 2.4; Iron 1.6

**ROOTS, INC., DIV. OF LISA PROD. CORP**

Dry Roots 2--Magnesium 0.45; Calcium 9.08; Iron 0.23-

**SCHULTZ CO.**

Schultz All Purpose Plant Food Plus--Iron 0.1; Manganese 0.053; Zinc 0.057  
Schultz Bloom Plus--Iron 0.10; Manganese; 0.04; Zinc 0.05

**SCOTTS/SIERRA HORTICULTURAL PRODUCTS**

Miracle-Gro Plant Food Spikes-All Flowering, Foliage Houseplants--Magnesium 0.81; Boron 0.023;  
Iron 0.28; Manganese 0.056; Zinc 0.054  
Scotts Turf Builder Plus Moss Control--Sulfur 13.1; Iron 2.9-

**STERN'S MIRACLE-GRO PRODUCTS**

Stern's Miracid Plant Food--Boron 0.021; Iron 0.298; Copper 0.072; Manganese 0.046; Zinc 0.087;  
Molybdenum 0.0008  
Miracle-Gro All Purpose Lawn Fertilizer--Sulfur 3.52; Iron 1.55-

**SUSTONE CORP., DIV. OF NATURAL FERT OF AMERICA**

Sustane All Natural Organic Landscaper's Choice Fertilizer--Calcium 5

**THE ESPOMA CO.**

Espoma All Organic N Plus Fe--Iron 1.8  
Espoma Bulb Tone--Magnesium 0.74; Boron 0.023; Calcium 6.4; Sulfur 8.4; Copper 0.04;  
Manganese 0.075; Sodium 0.382; Zinc 0.086; Cobalt 0.0002-; Molybdenum 0.0004  
Espoma Garden Tone--Magnesium 0.91; Boron 0.02; Calcium 4.7; Sulfur 7.3; Iron 1.04; Copper  
0.041; Manganese 0.072; Sodium 0.23; Zinc 0.053; Cobalt 0.0004; Molybdenum 0.0011  
Espoma Holly Tone--Magnesium 1.1; Boron 0.027; Calcium 4.7; Sulfur 6.8; Iron 1.2; Copper 0.06;  
Manganese 0.11; Sodium 0.34; Zinc 0.12; Cobalt 0.0003; Molybdenum 0.0004  
Espoma Plant Tone--Magnesium 0.68; Boron 0.023; Calcium 3; Sulfur 2; Iron 0.2-; Copper 0.027-;  
Manganese 0.057; Sodium 0.46; Zinc 0.041; Cobalt 0.003; Molybdenum 0.0003  
Espoma Rose Tone--Magnesium 0.61; Boron 0.018; Calcium 3.7; Sulfur 7.5; Iron 1.06; Copper 0.036-  
Manganese 0.08; Sodium 0.31; Zinc 0.075; Cobalt 0.0002-; Molybdenum 0.0003

**TRU-SERV CORP.**

Green Thumb Premium Lawn Fertilizer--Sulfur 2.21-; Iron 0.98  
Green Thumb Seed & Sod Starter Fertilizer--Sulfur 3.52; Iron 1.36; Copper 0.1; Manganese 0.11;  
Zinc 0.12  
Green Thumb Seed & Sod Starter Fertilizer--Sulfur 1.54