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Report #: 08-099-2090

Date Reported: 8-Apr-08

Report To: SPECIALS ACCOUNT
 AGRIENERGY RESOURCES
 21417 1950 E ST
 PRINCETON IL 61356-

Date Received: 31-Mar-08
 Date Sampled:
 Sample ID: COMPOST 3/08
 Account #: 7535

SUSITNA ORGANICS

Lab #: 1406026

Organic Solid Report					
Parameters	Analysis	Dry	Units	Nutrients Lbs./Ton	Detection Limit
	As Received	Weight		As Received	
Ammonium Nitrogen (N)	0.00	0.00	%	0.0	0.01
Organic Nitrogen (N)	0.71	1.47	%	14.2	Calculated
Total Nitrogen (N)	0.71	1.47	%	14.2	0.01
Phosphorus (P205)	0.32	0.66	%	6.4	0.10
Potassium (K2O)	0.58	1.20	%	11.6	0.10
Sulfur (S)	0.08	0.17	%	1.6	0.05
Calcium (Ca)	0.50	1.04	%	10.0	0.01
Magnesium (Mg)	0.19	0.39	%	3.8	0.01
Sodium (Na)	0.05	0.10	%	1.0	0.01
Copper (Cu)	n.d.	n.d.	ppm	0.0	20.0
Iron (Fe)	2317	4811	ppm	4.6	50.0
Manganese (Mn)	174	361	ppm	0.3	20.0
Zinc (Zn)	61	127	ppm	0.1	20.0
Moisture	51.84		%		0.10
Total Solids	48.16		%	963.2	
Total Salts				40.6	
pH	7.70				
Total Carbon	9.99	20.74	%		0.050
Chloride	0.13	0.27	%		0.02
Nitrate Nitrogen (N)	n.d.	n.d.	%		0.01

n.d. = Not Detected

Total salts should not exceed 500 lbs/acre.

Salt contributions from commercial fertilizer applications must also be considered.

Soil test yearly to monitor phosphorus levels, organic matter, pH, and micronutrients.

Matt Stukenholtz



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Compost Results Interpretations
Page 1

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Organic Matter %

18.32	As Received
38.04	Dry Weight

 20 to 35% = Indicates a desirable range for compost on a dry weight basis
 Organic Matter is used as a measure of compost maturity. Organic Matter is the carbon based materials found in compost and helps build soil structure, makes nutrients more available to plants, and improves the water holding capacity of soils.

Moisture %

51.84

 <35% = Indicates overly dry compost
 >55% = Indicates overly wet compost
 Moisture Percent is the measure of water present in the compost and expressed as a percentage of total weight. Moisture present affects handling and transport. Overly dry will be light and dusty while overly wet will be heavy and clumpy. A desirable moisture content of finished compost will range between 40 to 50%.

Total Nitrogen %

0.71	As Received
1.47	Dry Weight

 1.0 to 2.0% = Indicates quality compost on a dry weight basis
 Measurement of all Organic and Inorganic Nitrogen forms.

pH Value

7.7

 0 to 14 scale with 6 to 8 as normal pH levels for compost
 A pH in the 6 to 8 pH range indicates a more mature compost
 pH measures the acidity or alkalinity of the compost, and is a measurement of the hydrogen ion activity of a soil or compost on a logarithmic scale. The pH scale ranges from 0 to 14 and 7 indicates a neutral pH. Growing media with a higher pH or pH greater than 7 can benefit from a compost that has a more acidic pH or pH below 7. This type of application will possibly lower the soil pH making the soil more conducive to plants that thrive in a more acidic soil condition.



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Page 2

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Nutrient Index (Ag Index)
8.9

The Nutrient Index normally runs between 1 and 10.

The Nutrient Index is obtained by dividing the total nutrients (N,P,K) by the amount of salt (Sodium and Chloride). The higher the Nutrient Index the less chance of having a toxic buildup of Sodium (salt) in the soil.

AG INDEX CHART										
1	2	3	4	5	6	7	8	9	10	> 10
for soils with excellent drainage characteristics, good water quality, and low salts										
										for soils with poor drainage, poor water quality, or high salts
										for all soils

Tolerable Salt Levels (mmhos/cm)

- > 5 For vegetable and fruits (can be acceptably applied on soil with poor drainage and/or poor water quality or high Cl (>50 mgkg-1 and/or >150 mgkg-1 concentrations)
- 4 For most turf species (A rating of 2 to 5 indicates a compost to acceptably apply to soils with high permeability and good water quality and low salt concentrations)
- 3 For ornamental species
- < 2 For Salt sensitive species (A rating less than 2 indicates a compost that may cause injury to plants due to it's high salt levels)

Nutrients (N+P2O5+K2O)

3.34 Average Nutrient Content Dry Weight
0:5-0:5-0:5 Rating As Received

<2 = Low, >5 = High

The most commonly used compost data is the amount of Nitrogen, Phosphate, and Potash (abbreviated as N,P,K) present and the information is similar to that found in common fertilizers. If a compost result has the rating 1-2-2 it means that the compost has 1% Nitrogen, 2% Phosphate and 2% Potash. Most compost tests will have an average nutrient level (N+P+K) of < 5%.

C/N Ratio (Carbon/Nitrogen)
14:1:1 Maturity of Compost

<14 = Indicates mature compost

>20 = Indicates immature compost

The Carbon/Nitrogen Ratio is obtained by dividing the % C by the % N. Generally, the C/N ratio is between 12 to 17 with a level <14 indicating mature compost while >20 indicates an immature compost.