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Lab #	Report of Analysis		Report Number: 22-186-4110		
Account: 25124	RUSTY WILLARD CITY OF DENTON 1100 SOUTH MAYHILL RD DENTON TX 76208		 Robert Ferris Account Manager 402-829-9871		
Date Sampled: Date Received: Sample ID:	2022-06-22 2022-06-23 April, May, and June 2022 Curing Piles				
			Total content, lbs per ton (as rec'd)		
			Analysis (as rec'd)	Analysis (dry weight)	
NUTRIENTS					
Nitrogen					
Total Nitrogen	%	0.99	1.72	19.8	
Organic Nitrogen	%	0.95	1.65	18.9	
Ammonium Nitrogen	%	0.043	0.075	0.9	
Nitrate Nitrogen	%	< 0.01	----	----	
Major and Secondary Nutrients					
Phosphorus	%	0.46	0.80	9.2	
Phosphorus as P2O5	%	1.05	1.82	21.0	
Potassium	%	0.24	0.42	4.8	
Potassium as K2O	%	0.29	0.50	5.8	
Sulfur	%	0.33	0.57	6.6	
Calcium	%	2.45	4.26	49.0	
Magnesium	%	0.17	0.30	3.4	
Sodium	%	0.060	0.104	1.2	
Micronutrients					
Iron	ppm	17900	31103	35.8	
Manganese	ppm	296	514	0.6	
Boron	ppm	< 100	----	----	
OTHER PROPERTIES					
Moisture	%	42.45			
Total Solids	%	57.55		1151.0	
Organic Matter	%	27.00	46.92	540.0	
Ash	%	29.80	51.78	596.0	
Total Carbon	%	12.15	21.11		
Chloride	%	0.02	0.03		
pH		7.4			
Conductivity 1:5 (Soluble Salts)	mS/cm	2.38			

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Lab #	70135057	Biological & Physical Properties			Report Number: 22-186-4110																																																																																																																																																												
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Compost Results Interpretations

Page 1

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Organic Matter %		Greater than 20% indicates a desirable range for compost on a dry weight basis.
27.00	As Received	
46.92	Dry Weight	

Compost is a significant source of Organic Matter, which is an important supplier of carbon. Organic Matter improves soil and plant efficiency by improving soil physical properties, providing a source of energy to beneficial organisms, and enhancing the reservoir of soil nutrients.

C/N Ratio		20-30 indicates an ideal range for the initial compost process. 10-20 indicates an ideal range for a finished compost.
12.3:1		

All organic matter is made up of substantial amounts of carbon with lesser amounts of nitrogen. The balance of these two elements is called the Carbon/Nitrogen Ratio. For the best performance, the compost pile requires the correct proportion of carbon for energy and nitrogen for protein production. If the C:N ratio is too high (excess carbon) decomposition slows down. If the C:N ratio is too low (excess Nitrogen) the compost pile could be difficult to manage.

Moisture %		<35% = Indicates overly dry compost
42.45		

>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%.

Compost Results Interpretations

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Conductivity or Soluble Salts measures the conductance of electrical current in a liquid compost slurry. Excessive soluble salt content in a compost can prevent or delay seed germination and proper root growth. Conductivity analysis is done on a 1:5 basis.

Conductivity 1:5
2.4

Conductivity Level	Interpretation
Greater than 10	Very High nutrient content. Use for Ag Applications
5 - 10	High nutrient content. Use for Ag Applications
3 - 5	Higher than desirable for salt sensitive plants, some loss of vigor
0.6 - 3	Desirable range for most plants
0.3 - 0.6	Ideal range for greenhouse growth media
0.0 - 0.3	Very Low: Indicates very low nutrient status: plants may show deficiencies.

Compost Results Interpretations

Page 3

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pH Value

7.4

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.

Nutrient Index (Ag Index)

>10

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										
<i>salt injury possible</i>	<i>use on soils with excellent drainage characteristics, good water quality and low salts</i>				<i>you may use on soils with poor drainage, poor water quality, or high salts</i>					<i>for all soils</i>
1	2	3	4	5	6	7	8	9	10	> 10

Nutrients (N+P205+K20)

4.05

Average Nutrient Content Dry Weight

<2 = Low, >5 = High

1-1-0.5

Rating As Received

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 a average nutrient level (N+P+K) of < 5%.

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REPORT DATE
Jul 05, 2022
 RECEIVED DATE
Jun 23, 2022

SEND TO
25124



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ISSUE DATE
Jul 05, 2022

**CITY OF DENTON
 RUSTY WILLARD
 1100 SOUTH MAYHILL RD
 DENTON TX 76208**

REPORT OF ANALYSIS
 For: (25124) CITY OF DENTON
 April, May, and June 2022

Analysis	Level Found		Units	Reporting		Analyst- Date	Verified- Date
	As Received	Dry Weight		Limit	Method		

Sample ID: April, May, and June 2022 Curing Piles Lab Number: **70135057** Date Sampled: **2022-06-22 1330**

Cadmium (total)	n.d.	n.d.	mg/kg	0.50	EPA 6010	ery3-2022/06/29	kkh9-2022/07/03
Chromium (total)	16.7	29.0	mg/kg	1.00	EPA 6010	ery3-2022/06/29	kkh9-2022/07/03
Mercury (total)	n.d.	n.d.	mg/kg	0.05	EPA 7471	mrs3-2022/06/29	th1-2022/06/29
Lead (total)	6.4	11.1	mg/kg	5.0	EPA 6010	ery3-2022/06/29	kkh9-2022/07/03
Molybdenum (total)	1.7	2.9	mg/kg	1.0	EPA 6010	ery3-2022/06/29	kkh9-2022/07/03
Nickel (total)	6.6	11.4	mg/kg	1.0	EPA 6010	ery3-2022/06/29	kkh9-2022/07/03
Selenium (total)	n.d.	n.d.	mg/kg	10.0	EPA 6010	ery3-2022/06/29	kkh9-2022/07/03
Zinc (total)	109.3	189.9	mg/kg	2.0	EPA 6010	ery3-2022/06/29	kkh9-2022/07/03
Copper (total)	89.8	156	mg/kg	1	EPA 6010	ery3-2022/06/29	kkh9-2022/07/03
Arsenic (total)	3.04	5.28	mg/kg	0.50	EPA 6020	th1-2022/06/29	kkh9-2022/07/03

n.d. = not detected , ppm = parts per million, ppm = mg/kg

For questions please contact:

Rob Ferris
 Account Manager
 rferris@midwestlabs.com (402)829-9871

The result(s) issued on this report only reflect the analysis of the sample(s) submitted.

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