



US Composting Council
STA Certified Lab



soiltest
farm consultants, inc.
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Client: West Ranch Vermicompost	Product: 73124	Date Reported: 08/22/24
Attn: Robert Westendorf	Date Sampled: 07/31/24	Laboratory # C24-928
4645 Broadway Rd	Date Received: 08/06/24	Revised by Emmalee Slack
Springfield, OH 45502	Invoice #: C24-928	PO#:
937-207-5421		Amount: \$555.00

Nutrients

	Method	As Received	Dry Wt.	Units	Low	Normal	High	Typical Range
Moisture	70 C	69		%	*****			15 to 40
Solids	70 C	31		%	*****			60 to 85
pH	1:5	6.1	NA	SU	*****			5.5 to 8.5
E.C. (Sol. Salts)	1:5	4.56	14.58	mmhos/cm	*****			below 5.0
Total N	TMECC 04.02D	0.79	2.53	%	*****			1 to 5
Organic C	TMECC 04.01A	12.1	38.8	%	*****			18 to 45
Organic Matter	TMECC 05.07A	23.5	75.1	%	*****			40 to 60
Ash	550 C	7.8	24.9	%	**			40 to 60
Ammonium -N	TMECC 05.02C	32	101	mg/kg	*****			90 to 450
Nitrate-N	TMECC 04.02B	2209	7070	mg/kg				50 to 250
Phosphorous	TMECC 04.12B/04.14A	0.20	0.65	%				
P₂O₅	calculation	0.47	1.50	%	*****			1 to 8
Potassium	TMECC 04.12B/04.14A	0.80	2.58	%				
K₂O	calculation	0.97	3.09	%	*****			3 to 12
Calcium	TMECC 04.12B/04.14A	0.10	0.3	%	*****			0.5 to 10
Magnesium	TMECC 04.12B/04.14A	0.18	0.59	%	*****			0.05 to 0.7
Sodium	TMECC 04.12B/04.14A	0.05	0.16	%	*****			0.05 to 0.7
Sulfur	TMECC 04.12B/04.14A	0.13	0.42	%	*****			0.1 to 1.0
Boron	TMECC 04.12B/04.14A	13	42	mg/kg	*****			25 to 150
Zinc	TMECC 04.12B/04.14A	42	135	mg/kg	*****			100 to 600
Manganese	TMECC 04.12B/04.14A	52	165	mg/kg	*****			250 to 750
Copper	TMECC 04.12B/04.14A	10	32	mg/kg	***			100 to 500
Iron	TMECC 04.12B/04.14A	803	2569	mg/kg	*****			1000 to 25000
C/N ratio			15	ratio	*****			18 to 24
C/P Ratio			59	ratio	*****			80 to 140

Respiration & Stability

	Method	Units	Low	Normal	High	Normal
CO₂ Evolution	TMECC 05.08	0.2	mg CO ₂ -C/g OM/day	**		1 to 7
	TMECC 05.08	0.6	mg CO ₂ -C/g TS/day	*****		0.5 to 5
Stability Rating	Very Stable					

Cucumber Bioassay

	Method	Units	Low	Normal	Normal
Emergence	TMECC 05.05A	93	%	*****	80 to 100
Vigor	TMECC 05.05A	100	%	*****	85 to 100
Maturity	Very Mature: safe for use in containers				

Sample was received, handled and tested in accordance with TMECC procedures



West Ranch Vermicompost
Attn: Robert Westendorf
4645 Broadway Rd
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937-207-5421

DATE REC 6-Aug-24
INVOICE # 6-Aug-24
LAB # C24-928
Date Reported: 08/22/24

NUTRIENT REPORT

SAMPLE I.D.: 73124

	<u>%SOLIDS</u>	<u>%WATER</u>
As Received:	31.25	68.75

TOTAL ELEMENTS	-----100% DRY-----		-----AS RECEIVED-----	
	%	lbs/ton	%	lbs/ton
TN	2.53	50.6	0.79	15.8
P	0.65	13.07	0.20	4.1
P205	1.50	30.1	0.47	9.4
K	2.58	51.5	0.80	16.1
K20	3.09	61.8	0.97	19.3
S	0.42	8.38	0.13	2.6
Ca	0.33	6.6	0.10	2.1
Mg	0.59	11.8	0.18	3.7
Na	0.16	3.28	0.05	1.0
C	38.8	776	12.1	243
	mg/kg	lbs/ton	mg/kg	lbs/ton
Zn	135	0.27	42	0.08
Mn	165	0.33	52	0.10
Cu	32	0.06	10	0.02
Fe	2569	5.1	803	1.6
B	42	0.08	13.0	0.03
Nitrate N	7070	14.14	2209.3	4.42
Ammonium N	101	0.20	32	0.06
C:N Ratio			15	
pH			6.1	
E.C.	14.58		4.56	



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INTERPRETATION GUIDE	

COMPOST STABILITY AND MATURITY

Respiration

Respiration is the measurement of microbially generated CO₂ from the compost when incubated at optimal temperature and moisture. It provides an indication of whether the composting process is complete and whether the compost is mature and ready for use. However, other factors may be limiting microbial activity (see C:N Ratio below)

Your Compost was rated as Very Stable: well cured, finished compost; no odors or plant toxicity

Maturity

Bioassay

Cucumbers are grown in a fixed blend of your compost and a commercial potting mix maintained at optimum moisture and temperature. Cucumbers are relatively insensitive to salinity, but very sensitive to ammonia, organic acids and herbicide residue. Emergence and Vigor are rated: results greater than 80% indicate that your compost is mature and/or contains no herbicide carryover. Very high salinity can also reduce assay results.

Your Compost Emergence % **93** Your Compost vigor % **100**

Total Nitrogen, Nitrate & Ammonium

Ammonia is produced as a gas in the early stages of composting. The ammonium is nitrified to nitrate as the compost matures. Ammonia is toxic to plants at relatively low concentrations but under moist conditions is converted to ammonium which is less toxic. Nitrate is not toxic, but does contribute to overall salinity if very high. The pH of the compost typically starts out low as organic acids are released, then increases as ammonia is produced, then settles back towards neutral (7.0) as ammonium is nitrified and the compost matures.

Your Compost Ammonium level was **101** Your Compost Ammonium:Nitrate ratio was **0**
Your Compost Ammonium:Total N ratio was **0.00** Your Compost pH was **6.1**

Considering all the factors above, your Compost is Very Mature: safe for use in containers

FERTILITY INTERPRETATIONS

C:N Ratio

The carbon to nitrogen ratio is important to determine 1) if the composting process is complete or simply stalled out because of lack of nitrogen and 2) whether the compost, when applied to the soil, will act as a source of nitrogen for the crop or become a sink causing the crops to starve for nitrogen.

Your C:N ratio was **15** **Your compost will tend to release available N for crop use.**

Electrical Conductivity/Salinity

Electrical Conductivity is a convenient way to evaluate the soluble salts or salinity of a compost. High salinity is damaging to plants.

The EC of your Compost was **14.6** **V. High: use only a very low application rates**