



April 1, 2022

Peter Pirnejad
Town of Los Altos Hills
26379 Fremont Rd
Los Altos Hills, CA 94022

Dear Peter,

In accordance, with Exhibit H of the agreement between the Town of Los Altos Hills and GreenWaste Recovery, Inc., GreenWaste is submitting the Compost Quality Report due April 1, 2022.

Attached you will find laboratory report on the quality of the compost materials produced for the yard trimmings collected in Town and compost material delivered to the designated area of Purissima Rd and Elena Rd on a weekly basis.

Please contact Ereida Atayde at (408) 938-4925 or ereida.atayde@greenwaste.com if you have any questions.

Sincerely,

Ereida Atayde
Customer Service & Outreach Manager
GreenWaste Recovery Inc.



US COMPOSTING COUNCIL

Seal of Testing Assurance

Z-Best Products

Beto Ochoa
980 State Highway 25
Gilroy
CA 95020

Date Sampled/Received: 27 Jan. 22 / 27 Jan. 22

Product Identification
Z-best Organic Compost

COMPOST TECHNICAL DATA SHEET

LABORATORY: Soil Control Lab; 42 Hangar Way; Watsonville, CA 95076 tel: 831.724.5422 fax: 831.724.3188			
<i>Compost Parameters</i>	<i>Reported as (units of measure)</i>	<i>Test Results</i>	<i>Test Results</i>
Plant Nutrients:	%, weight basis	Not reported	Not reported
Moisture Content	%, wet weight basis	46.7	
Organic Matter Content	%, dry weight basis	55.7	
pH	units	8.17	
Soluble Salts <i>(electrical conductivity EC₅)</i>	dS/m (mmhos/cm)	3.7	
Particle Size or Sieve Size	maxium aggregate size, inches	0.38	
Stability Indicator (<i>respirometry</i>)		<i>Stability Rating:</i>	
CO ₂ Evolution	mg CO ₂ -C/g OM/day	3.9	Stable
	mg CO ₂ -C/g TS/day	2.2	
Maturity Indicator (bioassay)			
Percent Emergence	average % of control	100.0	
Relative Seedling Vigor	average % of control	100.0	
Select Pathogens	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.32(a)	Pass	<i>Fecal coliform</i>
		Pass	<i>Salmonella</i>
Trace Metals	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3.	Pass	<i>As,Cd,Cr,Cu,Pb,Hg</i> <i>Mo,Ni,Se,Zn</i>

Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost end use instructions, as a means to better serve the needs of their compost customers.

Laboratory Group: Jan22D Laboratory Number: 2010604-1/3

Analyst: Assaf Sadeh

www.controllabs.com



US COMPOSTING COUNCIL

Seal of Testing Assurance

Z-Best Products

Beto Ochoa
980 State Highway 25
Gilroy
CA 95020

Date Sampled/Received: 27 Jan. 22 / 27 Jan. 22

Product Identification
Z-best Organic Compost

COMPOST TECHNICAL DATA SHEET

LABORATORY: Soil Control Lab; 42 Hangar Way; Watsonville, CA 95076 tel: 831.724.5422 fax: 831.724.3188			
Compost Parameters	Reported as (units of measure)	Test Results	Test Results
Plant Nutrients:	%, weight basis	%, wet weight basis	%, dry weight basis
Nitrogen	Total N	1.0	1.9
Phosphorus	P ₂ O ₅	0.36	0.68
Potassium	K ₂ O	0.76	1.4
Calcium	Ca	1.2	2.3
Magnesium	Mg	0.41	0.77
Moisture Content	%, wet weight basis	46.7	
Organic Matter Content	%, dry weight basis	55.7	
pH	units	8.17	
Soluble Salts <i>(electrical conductivity EC₅)</i>	dS/m (mmhos/cm)	3.7	
Particle Size or Sieve Size	% under 9.5 mm, dw basis	100.0	
Stability Indicator (<i>respirometry</i>)		Stability Rating:	
CO ₂ Evolution	mg CO ₂ -C/g OM/day	3.9	Stable
	mg CO ₂ -C/g TS/day	2.2	
Maturity Indicator (bioassay)			
Percent Emergence	average % of control	100.0	
Relative Seedling Vigor	average % of control	100.0	
Select Pathogens	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.32(a)	Pass	<i>Fecal coliform</i>
		Pass	<i>Salmonella</i>
Trace Metals	PASS/FAIL: per US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3.	Pass	<i>As, Cd, Cr, Cu, Pb, Hg</i> <i>Mo, Ni, Se, Zn</i>

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Laboratory Group: Jan22D Laboratory Number: 2010604-1/3

Analyst: Assaf Sadeh

www.controllabs.com



US COMPOSTING COUNCIL

Seal of Testing Assurance

Caltrans

Z-Best Products
Beto Ochoa
980 State Highway 25
Gilroy CA 95020

Product Identification:

Z-best Organic Compost

Date Sampled/Received: 27 Jan. 22 / 27 Jan. 22

COMPOST TECHNICAL DATA SHEET for Caltrans

LABORATORY: Soil Control Lab, 42 Hangar Way, Watsonville, CA 95076 tel (831) 724-5422 fax (831) 724-3188 www.controllabs.com

<i>Compost Parameters</i>	<i>Test Results</i>	<i>Reported as (units of measure)</i>	<i>TMECC Test Method</i>
pH	8.17	Unitless	04.11-A 1:5 Slurry pH
Soluble Salts (electrical conductivity)	3.7	dS/m (mmhos/cm)	04.10-A 1:5 Slurry Method Mass Basis
Moisture content	46.7	%, wet weight basis	03.09-A - Total Solids and Moisture
Organic Matter Content	55.7	%, dry weight basis	05.07-A Loss-on-Ignition Organic Matter Method (LOI)
Maturity Indicator (bioassay) Percent Emergence	100.0	average % of control	05.05-A Germination and vigor
Relative Seedling Vigor	100.0	average % of control	
Stability Indicator	3.9	mg CO ₂ -C/g OM/day	05.08-B Carbon Dioxide Evolution Rate
Particle Size	100.0	%, dry weight passing through 9.5 mm	02.02-B Sample Sieving for Aggregate Size Classification
Pathogens	Pass	PASS/FAIL: Per US EPA Class A standard, 40 CFR 503.32(a)	07.01-B Fecal coliforms
Pathogens	Pass	PASS/FAIL: Per US EPA Class A standard, 40 CFR 503.32(a)	07.02 Salmonella
Physical Contaminants	0.10	%, dry weight basis	02.02-C - Man-Made Inerts Total content
Physical Contaminants	None Detected	%, dry weight basis	02.02-C - Man-Made Inerts Sharps content
Heavy Metals Content	Pass	PASS/FAIL: Per US EPA Class A 40 CFR 503.13, tables 1 and 3.	04.06-Heavy Metals standard, and Hazardous Elements

Participants in the US Composting Council's Seal of Testing Assurance Program have shown the commitment to test their compost products on a prescribed basis and provide this data, along with compost end use instructions, as a means to better serve the needs of their compost customers.

For additional information pertaining to compost use, the specific compost parameters tested for within the Seal of Testing assurance Program, or the program in general, log on to the US Composting Council's TMECC web-site at <http://www.tmecc.org>.

This compost product has been sampled and tested as required by the Seal of Testing assurance Program on the United States Composting Council (USCC), using certain methods from the "Test Methods for the Examination of Compost and Composting" manual. Test results are available upon request by contacting the compost producer (address at top of page). The USCC makes no warranties regarding this product or its content, quality, or suitability for any particular use.

Laboratory Group: Jan22D Laboratory Number: 2010604-1/3

Analyst: Assaf Sadeh

www.controllabs.com

SOIL CONTROL LAB

42 HANGAR WAY
WATSONVILLE
CALIFORNIA
95076
USA

Account #: 2010604-1/3-1589
Group: Jan22D #34
Reporting Date: February 9, 2022

Z-Best Products
980 State Highway 25
Gilroy, CA 95020
Attn: Beto Ochoa

Date Received: 27 Jan. 22
Sample Identification: Z-best Organic Compost
Sample ID #: 2010604 - 1/3

Nutrients	Dry wt.	As Rcvd.	units	Stability Indicator:			
Total Nitrogen:	1.9	1.0	%	CO2 Evolution	Respirometry		
Ammonia (NH ₄ -N):	40	21	mg/kg	mg CO ₂ -C/g OM/day	3.9		
Nitrate (NO ₃ -N):	23	12	mg/kg	mg CO ₂ -C/g TS/day	2.2		
Org. Nitrogen (Org.-N):	1.9	1.0	%	Stability Rating	stable		
Phosphorus (as P ₂ O ₅):	0.67	0.36	%	Maturity Indicator: Cucumber Bioassay			
Phosphorus (P):	3000	1600	mg/kg	Compost:Vermiculite (v:v)	1:2		
Potassium (as K ₂ O):	1.4	0.75	%	Emergence (%)	100		
Potassium (K):	12000	6300	mg/kg	Seedling Vigor (%)	100		
Calcium (Ca):	2.3	1.2	%	Description of Plants	healthy		
Magnesium (Mg):	0.77	0.41	%	Pathogens	Results	Units	Rating
Sulfate (SO ₄ -S):	150	81	mg/kg	Fecal Coliform	< 7.5	MPN/g	pass
Boron (Total B):	52	28	mg/kg	Salmonella	< 3	MPN/4g	pass
Moisture:	0	46.7	%	Date Tested: 27 Jan. 22			
Sodium (Na):	0.16	0.085	%	Physical Contaminants**	% by dry wt		
Chloride (Cl):	0.33	0.18	%	Total Plastic	< 0.1		
pH Value:	NA	8.17	unit	Film Plastic	< 0.1		
Bulk Density :	21	39	lb/cu ft	Glass	0.10		
Carbonates (CaCO ₃):	28	15	lb/ton	Metal	< 0.1		
Conductivity (EC5):	3.7	NA	mmhos/cm	Sharps	ND		
Organic Matter:	55.7	29.7	%	Total	< 0.5		
Organic Carbon:	30.0	16.0	%	Size Distribution			
Ash:	44.3	23.6	%	MM	% by weight		
C/N Ratio	16	16	ratio	> 50	0.0		
AgIndex	8	8	ratio	25 to 50	0.0		
Metals	Dry wt.	EPA Limit	units	16 to 25	0.0		
Aluminum (Al):	6400	-	mg/kg	9.5 to 16	0.0		
Arsenic (As):	3.9	41	mg/kg	6.3 to 9.5	1.3		
Cadmium (Cd):	< 1.0	39	mg/kg	4.0 to 6.3	11.1		
Chromium (Cr):	27	-	mg/kg	2.0 to 4.0	21.6		
Cobalt (Co)	5.4	-	mg/kg	< 2.0	65.9		
Copper (Cu):	49	1500	mg/kg	**Greater than 4mm in size (Sharps greater than 2mm)			
Iron (Fe):	12000	-	mg/kg				
Lead (Pb):	32	300	mg/kg				
Manganese (Mn):	260	-	mg/kg				
Mercury (Hg):	< 1.0	17	mg/kg				
Molybdenum (Mo):	1.9	75	mg/kg				
Nickel (Ni):	35	420	mg/kg				
Selenium (Se):	< 1.0	100	mg/kg				
Zinc (Zn):	150	2800	mg/kg				

Analyst: Assaf Sadeh



*Sample was received and handled in accordance with TMECC procedures.

Account No.:
 2010604 - 1/3 - 1589
 Group: Jan22D No. 34

Date Received
 Sample i.d.
 Sample I.d. No.

27 Jan. 22
 Z-best Organic Compost
 1/3 2010604

INTERPRETATION:

Is Your Compost Stable?

Respiration Rate
 3.9 mg CO₂-C/
 g OM/day

+++++
< Stable > < Moderately Unstable> < Unstable > < High For Mulch

Is Your Compost Mature?

Ammonia/NitrateN ratio
 1.7 Ratio

+++++
VeryMature> < Mature > < Immature

Ammonia N ppm
 40 mg/kg
 dry wt.

++++
VeryMature> < Mature > < Immature

Nitrate N ppm
 23 mg/kg
 dry wt.

+++++
< Immature > < Mature

Cucumber Emergence
 100.0 percent

+++++
< Immature > < Mature

Is Your Compost Safe Regarding Health?

Fecal Coliform
 < 1000 MPN/g dry wt.

+++++
< Safe > < High Fecal Coliform

Salmonella
 Less than 3 /4g dry wt.

+++++
<Safe (none detected) > < High Salmonella Count(> 3 per 4 grams)

Metals US EPA 503
 Pass dry wt.

+++++
<All Metals Pass > < One or more Metals Fail

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P₂O₅+K₂O)
 4.0 Percent
 dry wt.

+++++
<Low > < Average > < High Nutrient Content

AgIndex (Nutrients / Sodium and Chloride Salts) $((N+P_2O_5+K_2O) / (Na + Cl))$
 8 Ratio

+++++
Na & Cl > < Nutrient and Sodium and Chloride Provider > < Nutrient Provider

Plant Available Nitrogen (PAN) Estimated release for first season
 4 lbs/ton
 wet wt.

+++++
Low Nitrogen Provider> < Average Nitrogen Provider > <High Nitrogen Provider

C/N Ratio
 16 Ratio

+++++
< Nitrogen Release > < N-Neutral > < N-Demand> < High Nitrogen Demand

Soluble Available Nutrients & Salts (EC₅ w/w dw)
 3.7 mmhos/cm
 dry wt.

+++++
SloRelease> < Average Nutrient Release Rate > <High Available Nutrients

Lime Content (CaCO₃)
 28 Lbs/ton
 dry wt.

+++++
< Low > < Average > < High Lime Content (as CaCO ₃)

What are the physical properties of your compost?

Percent Ash
 44.3 Percent
 dry wt.

+++++
< High Organic Matter > < Average > < High Ash Content

Sieve Size % > 6.3 MM (0.25")
 1.3 Percent
 dry wt.

+++++
All Uses > < Size May Restrict Uses for Potting mix and Golf Courses

Account No.:
2010604 - 1/3 - 1589
Group: Jan22D No. 34

Date Received 27 Jan. 22
Sample i.d. Z-best Organic Compost
Sample I.d. No. 1/3 2010604

INTERPRETATION:

Page two of three

Is Your Compost Stable?

Respiration Rate

3.9 Low: Good for all uses mg CO₂-C/g OM/day

The respiration rate is a measurement of the biodegradation rate of the organic matter in the sample (as received). The respiration rate is determined by measuring the rate at which CO₂ is released under optimized moisture and temperature conditions.

Is Your Compost Mature?

Ammonia:NitrateN ratio

1.7 mature

Ammonia N ppm

40 very mature

Nitrate N ppm

23 immature

Composting to stabilize carbon can occur at such a rapid rate that sometimes phytotoxins remain in the compost and must be neutralized before using in high concentrations or in high-end uses. This step is called curing. Typically ammonia is in excess with the break-down of organic materials resulting in an increase in pH. This combination results in a loss of volatile ammonia (it smells). Once this toxic ammonia has been reduced and the pH drops, the microbes convert the ammonia to nitrates. A low ammonia + high nitrate score is indicative of a mature compost, however there are many exceptions. For example, a compost with a low pH (<7) will retain ammonia, while a compost with high lime content can lose ammonia before the organic fraction becomes stable. Composts must first be stable before curing indicators apply.

Cucumber Bioassay

100.0 Percent

Cucumbers are chosen for this test because they are salt tolerant and very sensitive to ammonia and organic acid toxicity. Therefore, we can germinate seeds in high concentrations of compost to measure phytotoxic effects without soluble salts being the limiting factor. Values above 80% for both percent emergence and vigor are indicative of a well-cured compost. Exceptions include very high salts that affect the cucumbers, excessive concentrations of nitrates and other nutrients that will be in range when formulated to make a growing media.

Is Your Compost Safe Regarding Health?

Fecal Coliform

< 1000 / g dry wt.

Fecal coliforms can survive in both aerobic and anaerobic conditions and is common in all initial compost piles. Most human pathogens occur from fecal matter and all fecal matter is loaded in fecal coliforms. Therefore fecal coliforms are used as an indicator to determine if the chosen method for pathogen reduction (heat for compost) has met the requirements of sufficient temperature, time and mixing. If the fecal coliforms are reduced to below 1000 per gram dry wt. it is assumed all others pathogens are eliminated. Potential problems are that fecal coliform can regrow during the curing phase or during shipping. This is because the conditions are now more favorable for growth than during the composting process.

Salmonella Bacteria

Less than 3 / 4g dry wt.

Salmonella is not only another indicator organism but also a toxic microbe. It has been used in the case of biosolids industry to determine adequate pathogen reduction.

Metals

Pass

The ten heavy metals listed in the EPA 503 regulations are chosen to determine if compost can be applied to ag land and handled without toxic effects. Most high concentrations of heavy metals are derived from woodwaste feedstock such as chrome-arsenic treated or lead painted demolition wood. Biosolids are rarely a problem.

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P₂O₅+K₂O)

4.0 Average nutrient content

This value is the sum of the primary nutrients Nitrogen, Phosphorus and Potassium. Reported units are consistent with those found on fertilizer formulations. A sum greater than 5 is indicative of a compost with high nutrient content, and best used to supply nutrients to a receiving soil. A sum below 2 indicates low nutrient content, and is best-used to improve soil structure via the addition of organic matter. Most compost falls between 2 and 5.

