



Anaheim Office
May 10, 2023
Report 23-121-0010

Zanker Landscape Materials
675 Los Esteros Road
San Jose, CA 95134

Attn: Marin & Beto

RE: Landscape Compost processed 05/01/2023

The first sheet is the actual test data and the second sheet evaluates the potential rate limiting factors in the top table and in this case, boron and salinity are the only potentially rate limiting factors. Boron and salinity do not limit the use of this material at the recommended amendment rate. The bottom table on that sheet uses an example rate of 43% based on organic content. At the example rate, the degree to which the compost would satisfy the immediate requirement for each required nutrient is indicated.

Approximately 9.1% of the material was retained on the 1" screen and 8% of the material was retained on the 1/2" screen. Of the fraction passing the 1/2" screen, approximately 87.2% of the amendment passes the 6.4 mm (1/4 inch) screen and 48.9% passes the 2.36 mm (about 1/8 inch). Actual organic matter content is favorable at 212 pounds per cubic yard. Organic content at 55.2% is favorable. The as-received moisture level at 34.9% is favorable.

The carbon to nitrogen ratio at 38.9 is slightly higher than ideal to meet the anticipated decomposition requirement and there will be a consumption of nitrogen as the microbes break down the less resistant organic matter. To ensure that this does not compete with the plants for nitrogen this could be dealt with at the time of use by simultaneously incorporating Ureaform 38-0-0 (27% water insoluble nitrogen) at a rate of 1 pound per cubic yard of amendment. This slow release product should offset the requirement of the amendment but the planting should still be on a regular nitrogen fertilization program.

Reaction is slightly alkaline at a pH of 7.6 with a high level of lime present. Salinity, sodium and boron are all favorably low.

At the example rate of 43% volume this material would provide an abundant amount of potassium, zinc and organic matter. This volume rate is equivalent to about 8 cubic yards per 1000 square feet for blending to 6 inches depth. This would be adding 1696 pounds organic matter, which would increase organic content of a sandy loam soil by about 6.3% on a dry weight basis. Typical use rates as an incorporated amendment will be 2-6 yd.³ per 1000 ft.² incorporated to a 6 inch depth.

If we can be of any further assistance, please feel free to contact us.

A handwritten signature in black ink, appearing to read "Joe Kiefer".

Joe Kiefer, CCA
jkiefer@waypointanalytical.com

Emailed 3 pages: marin.villalpando@greenwaste.com & beto.ochoa@greenwaste.com

COMPOST / AMENDMENT EVALUATION

Send To : Zanker Landscape Materials 675 Los Esteros Road San Jose CA 95134	Project : Landscape Compost	Report Number : 23-121-0010 Customer Number : 01002 Date printed : 05/08/2023 Date received : 05/01/2023 Page : 1 of 2 Lab Number : 59394
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Sample Id : **Landscape Compost**

Nutrient	Total - Dry Weight	Extractable - Dry Weight	Saturation Extract	Sufficiency Factor
Nitrogen (N)	0.85 %	45 ppm		0.2
NH ₄ -N		31 ppm		
NO ₃ -N		14 ppm		
Phosphorus (P)		89 ppm		0.5
Phosphorus (P ₂ O ₅)		204 ppm		
Potassium (K)		3871 ppm	13.3 meq/L	5.6
Potassium (K ₂ O)		4684 ppm		
Calcium (Ca)		4670 ppm	4.6 meq/L	0.9
Magnesium (Mg)		38 ppm	3.9 meq/L	0.1
Sodium (Na)			7.1 meq/L	
Sulfur (S)				
Sulfate (SO ₄)			4.6 meq/L	1.5
Chloride (Cl)				
Copper (Cu)		3.7 ppm		1.0
Zinc (Zn)		28 ppm		1.9
Manganese (Mn)		23 ppm		0.7
Iron (Fe)		69 ppm		0.5
Dilute Acid Fe		0.21 %		
Boron (B)			0.88 ppm	2.9

Test	Result
pH (sat paste)	7.6 s.u.
% Half Sat.	136
TEC	290 meq/kg
Qualitative Lime	High
Salinity (EC of sat ext.)	2.4 dS/m
SAR (Sodium adsorption ratio)	3.45
Sodium as % of ECe	27 %
Bulk Density - Dry	384 lbs/yd ³
Bulk Density - As Received	590 lbs/yd ³
Moisture - As Received	34.9 %
Organic	55.2 %
Weight of organic / yd ³	212 lbs/yd ³
Weight of mineral / yd ³	172 lbs/yd ³
C/N Ratio	38.9

Gradation	
Wt Percent Retained 1"	9.1 %
Wt Percent Retained 1/2"	8.0 %
Fraction Passing 1/2 inch Screen - Dry Weight Basis	
Screen Opening	% Passing
Passing 9.5mm	96.6 %
Passing 6.4mm (1/4")	87.2 %
Passing 4.75mm	76.0 %
Passing 2.36mm	48.9 %
Passing 1.00mm	25.0 %
Passing 0.50mm	16.2 %

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POTENTIAL RATE LIMIT FACTORS

Test	% Volume rate limit	Cubic yard amendment per 1000 sf to 6"							
		1	2	3	4	5	6	7	8
		Volume % amendment blend with sandy loam							
		5	11	16	22	27	32	38	43
EC sat. ext.	96 %								
Sodium sol.	No Limit								
Chloride sol.									
Boron sol.	87 %								
NH ₄ -N	No Limit								
Available									
Nitrogen	No Limit								
PO ₄ P	No Limit								
Copper	No Limit								
Zinc	No Limit								

Rate limit estimates based on amending a non-problematic sandy loam

RELATIVE IMMEDIATE NUTRIENT AND ORGANIC VALUE

* Example Rate 43 %	Slight	Moderate	Abundant
Nitrogen			
Phosphorus			
Potassium			
Calcium			
Magnesium			
Copper			
Zinc			
Manganese			
Iron			
Sulfate			
Organic Matter			

* If no chemical characteristics are rate limiting, the example rate is based on organic content of the amendment (up to a max of 43%).

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