

New York State Department of Environmental Conservation  
Division of Materials Management  
Albany, New York 12233-7253

**2019**  
**REGISTERED OR PERMITTED FACILITY ANNUAL REPORT**  
**COMPOSTING**  
**(DO NOT USE THIS FORM FOR BIOSOLIDS COMPOSTING)**  
**6 NYCRR Part 361-3.2**

**This annual report is for the year of operation from January 01, 2019 to December 31, 2019**

**Annual Report Form Due: No Later than March 1, 2020**

This form may be used for all composting facilities under section 361-3.2 of the Part 360 series except for biosolids composting. Biosolids composting requires the submission of a different annual report form. Forms for all solid waste management facilities can be found at <http://www.dec.ny.gov/chemical/52706.html>. If you have any questions on this form, please e-mail [organicrecycling@dec.ny.gov](mailto:organicrecycling@dec.ny.gov).

Failure to provide the required information requested is a violation of Environmental Conservation Law. Timely submission of a properly completed form to the Department's Regional Office that has jurisdiction over your facility and to the Department's Central Office is required to meet the Annual Report requirements of 6 NYCRR Part 360 series.

Attach additional sheets if space on the pages is insufficient or supplementary information is required or appropriate.

DSNY Soundview Park Yard Waste Composting Facility

FACILITY NAME: SOUNDVIEW YARD WASTE COMPOST FACILITY

03Y03 - KE

SW FACILITY ACTIVITY NUMBER(S): (Ex. 02P20099) PERMIT #2-6077-00277/00001

COUNTY WHERE FACILITY IS LOCATED: BRONX

DEC USE ONLY

Region: X      SWIMS: X

MATRIX: X

Date Reviewed:

Reviewed By:

Data Entered: 7/15/20 - KE

**COMPOST FACILITY ANNUAL REPORT  
SECTION 1 – FACILITY INFORMATION**

FACILITY INFORMATION			
<b>FACILITY NAME:</b> SOUNDVIEW YARD WASTE COMPOST FACILITY			
<b>FACILITY LOCATION ADDRESS:</b> SOUNDVIEW PARK-RANDALL AVENUE	<b>FACILITY CITY:</b> BRONX	<b>STATE:</b> NY	<b>ZIP CODE:</b> 10473
<b>FACILITY TOWN:</b> BRONX	<b>FACILITY COUNTY:</b> BRONX	<b>FACILITY PHONE NUMBER:</b> 845-753-2242	
<b>NYSDEC REGION #:</b> 2			
OWNER INFORMATION			
<b>FACILITY CONTACT:</b> BRIAN FLEURY	<b>CONTACT PHONE NUMBER:</b> 845-753-2242		
<b>CONTACT EMAIL ADDRESS:</b> brian.fleury@denaliwater.com			
<b>OWNER NAME:</b> NYC DEPARTMENT OF SANITATION	<b>OWNER PHONE NUMBER:</b> 212-437-4670		
<b>OWNER ADDRESS:</b> 125 WORTH STREET - RM 726	<b>OWNER CITY:</b> NEW YORK	<b>STATE:</b> NY	<b>ZIP CODE:</b> 10013
<b>OWNER CONTACT:</b> KIRK TOMLINSON	<b>OWNER CONTACT EMAIL ADDRESS:</b> KTOMLINSON@DSNY.NYC.GOV		
OPERATOR INFORMATION			
<b>OPERATOR NAME:</b> <input type="checkbox"/> Same as owner <b>Denali Water Solutions</b>			
PREFERENCES			
<b>Preferred address to receive correspondence:</b> <input type="radio"/> Facility location address <input checked="" type="radio"/> Owner address			
<input checked="" type="radio"/> Other (provide): 125 WORTH STREET, RM 726 NY, NY 10013			
<b>Preferred email address:</b> <input type="radio"/> Facility Contact <input checked="" type="radio"/> Owner Contact			
<input type="radio"/> Other (provide): KTOMLINSON@DSNY.NYC.GOV			
<b>Preferred individual to receive correspondence:</b> <input type="radio"/> Facility Contact <input type="radio"/> Owner <input checked="" type="radio"/> Owner Contact			
<input checked="" type="radio"/> Other (provide): KIRK TOMLINSON			
<p><b>Did you operate in 2019?</b> <input checked="" type="radio"/> Yes; Complete this form.</p> <p><input type="radio"/> No; Complete and submit Sections 1, 12 and 13. If you no longer plan to operate and wish to relinquish your permit/registration associated with this solid waste management activity, please notify the regional office of your intent. See attachment for Regional Office addresses and contacts.</p>			

## SECTION 2 – QUANTITY OF MATERIAL RECEIVED

Please report quantities received from January 01, 2019 to December 31, 2019

	Inputs	Quantity	Unit	Source(s)
<b>YARD WASTE</b>	Leaves only	<b>2,320</b>	Cubic Yards	
	Grass Clippings		Choose Units	
	Mixture of Grass and Leaves		Choose Units	
	Brush (Small branches and limbs, <4 inch diameter)		Choose Units	
<b>SSO</b>	Source Separated Organics (Food scraps, soiled paper products, etc.)		Choose Units	
	Food Processing Waste (brewery grains, grape pomace, etc.)		Choose Units	
<b>OTHER</b>	Crop Residues (Corn stalks, etc.)		Choose Units	
	Manure (including bedding)		Choose Units	
	Sawdust/Shavings		Choose Units	
	Animal Carcasses (road-kill, animal mortalities)		Choose Units	
	Paper Mill Residuals		Choose Units	
	Digestate		Choose Units	
	Other: <u>Christmas Trees</u>	<b>4,088</b>	Cubic Yards	
<b>BULKING AGENT</b>	Woodchips		Choose Units	
	Sawdust		Choose Units	
	Other: _____		Cubic Yards	

### SECTION 3 – COMPOST PRODUCTION

<b>WHAT IS THE PROCESS DETENTION TIME?</b> <i>Note: Total time material is processed, not including storage time</i>	335 _____ days
<b>COMPOST PRODUCED DURING THE YEAR:</b>	870 _____ cubic yards or _____ tons
<b>COMPOST DISTRIBUTED DURING THE YEAR:</b>	910 _____ cubic yards or _____ tons
<b>QUANTITY CURRENTLY STOCKPILED:</b> <i>Note: Finished product stockpiled</i>	1,375 _____ cubic yards or _____ tons
<b>AGE OF OLDEST PRODUCT ON SITE:</b>	24 _____ months

### SECTION 4 – COMPOST DISTRIBUTION

Quantity Distributed (cubic yards)	Use of Compost (landscaping, agriculture, highway, onsite, bagged, etc.)
910	<b>FINISHED COMPOST PRODUCED AT THIS SITE</b>
	WAS DISTRIBUTED TO CITY AGENCIES AND NON-PROFIT
	ORGANIZATIONS FOR USE ON SUCH PROJECTS AS GARDENING
	SOIL MITIGATION, HABITAT IMPROVEMENT, NATIVE PLANT
	ESTABLISHMENTS AND FOR THE USE OF TURF AND OTHER
	LANDSCAPING PROJECTS. A portion of the compost was bagged.

If **PERMITTED SSO** composting facility, continue to Section #5  
SSO – Source Separated Organics

**ALL OTHER COMPOSTING FACILITIES**, continue to Section #9

**SECTION 5 – PATHOGEN AND VECTOR ATTRACTION REDUCTION**

For permitted SSO composting facilities only. Check one method for each:

**Pathogen Reduction 361-3.7(a)**

- Windrow Composting
- Aerated Static Pile Composting
- In-vessel Composting
- Other (specify): \_\_\_\_\_

**Vector Attraction Reduction 361-3.7(b)**

- 38 % Volatile Solids Reduction
- SOUR
- Aerobic Process 14 days,  $\geq 40C$ ,  $\geq 45 C$  avg.

**Attach operating and monitoring data to show compliance with methods chosen. Temperature data records should indicate when a pile was created, pile was moved, additional material was added and/or pile was turned.**

### SECTION 6 – FINISHED COMPOST ANALYSIS

For permitted SSOW composting facilities only. Please attach sampling analyses and laboratory reports as required under Part 360 or your permit. Copies of original laboratory results must be attached. All results, except pH and Total Solids, must be on a dry weight basis. See 361-3.9 Table 6 for pollutant limits and Table 5 for annual product testing frequency 361-3.9 Table 5.

Summarize data in table below or attached document. Print additional pages as needed.

Analysis Date =====>					Max. Conc. (mg/kg)
Arsenic (mg/kg)					41
Cadmium (mg/kg)					10
Chromium (mg/kg)					1,000
Copper (mg/kg)					1,500
Lead (mg/kg)					300
Mercury (mg/kg)					10
Molybdenum (mg/kg)					40
Nickel (mg/kg)					200
Selenium (mg/kg)					100
Zinc (mg/kg)					2,500
TKN (mg/kg)					
Ammonia Nitrogen (mg/kg)					
Nitrate (mg/kg)					
Total Phosphorus (mg/kg)					
Total Potassium (mg/kg)					
pH (s.u.)					
Total Solids( %)					
Total Volatile Solids (%)					
Fecal Coliform (MPN/g)					<1,000 MPN/g
Salmonella (MPN/4g)					<3MPN/4g
Other _____					



## SECTION 7 –SAMPLE MANAGEMENT PLAN

For permitted SSO composting facilities only. Describe the number, frequency and location of samples taken. Include a diagram showing all sampling locations.

## SECTION 8 – ATTACHMENTS (IF REQUIRED)

Permitted SSO composting facilities, please attach:

- Temperature monitoring and detention time data.
- Sample analyses laboratory reports.
- Any additional reporting requirements.

Do you have a variance to the Part 360 permit requirements?  Yes  No

If yes, please describe:

## **SECTION 9 – UNAUTHORIZED WASTE**

Has unauthorized solid waste been received at the composting facility during the reporting period?

Yes  No

If yes, give information below for each incident (attach additional sheets if necessary):

## **SECTION 10 – PROBLEMS/COMPLAINTS**

Describe any operational problems or neighbor complaints arising from the composting operation and include any methods used to remedy the situations. This should include odor complaints, marketing difficulties, major equipment failure, etc.

NONE

## **SECTION 11 – QUESTIONS**

Please identify any questions or concerns that you would like the Department to answer or consider:

NONE AT THIS TIME



## SECTION 12 – FOOD DONATION & FOOD SCRAPS RECYCLING LAW

**If you are registered or permitted to compost food scraps please complete the following.** For all other operations that are interested in processing food scraps, please contact your DEC regional office to determine what is required.

In 2019, New York State passed the Food Donation & Food Scraps Recycling law. Effective January 1, 2022, large generators of food scraps (defined as generating an annual average of two tons per week or more) must donate excess food and recycle all remaining food scraps if they are within 25 miles of an organics recycler (composting facility, anaerobic digester, etc.). Examples of large generators include: large restaurants, grocery stores, hotels, colleges, etc. For more information visit: <https://www.dec.ny.gov/chemical/114499.html>

### Contact Information

Under this legislation, DEC is responsible for providing a list of organics recyclers (compost facilities, anaerobic digesters, etc.) to large generators so they can determine available food scraps recycling opportunities in their area.

You will be included in this listing if you hold a permit or registration for the composting of source separated organics or food scraps. This will educate both large generators and haulers of food scraps that you are an available composter in their area.

Please provide the following information to include in the listing.

Name of Business: \_\_\_\_\_

Business Phone Number: \_\_\_\_\_

Business Email: \_\_\_\_\_

Business Website: \_\_\_\_\_

I would like to opt out of DEC listing my facility as an available food scraps recycler for large generators as it relates to the Food Donation and Food Scraps Recycling law.

### Assessing Your Food Scraps Recycling Capacity

DEC is responsible for assessing available food scraps recycling capacity across New York State. Information from your operation will help us do this. Please complete the following section to calculate the amount of excess food scraps your operation will have the capability to process in **2022**. Please stay consistent with units (wet tons or cubic yards).

A. Amount of foods scraps projected to be processed in **2020**: \_\_\_\_\_ Choose Unit

B. Amount of foods scraps projected to be processed in **2022**: \_\_\_\_\_ Choose Unit

\* Note: You will not be required to process this quantity of material, these estimates will only be used to assist DEC in capacity planning across the state in preparation for the Food Donation and Food Scraps Recycling law effective January 1, 2022.

**Questions?**

DEC USE ONLY

Excess Capacity:

\_\_\_\_\_

**SECTION 13 - CERTIFICATION**

The Owner or Operator must sign, date and submit one completed form with an original signature to the appropriate Regional Office (See attachment for Regional Office addresses and Contacts.)

The Owner or Operator must also submit one copy by email, fax or mail to:

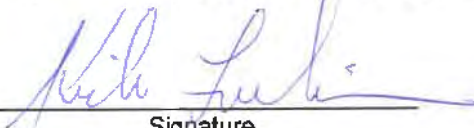
**NYS Department of Environmental Conservation  
Bureau of Waste Reduction and Recycling – Annual Report  
625 Broadway – 9<sup>th</sup> Floor  
Albany, New York 12233-7253**

**Phone: 518-402-8706**

**Fax 518-402-9024**

**Email address: [organicrecycling@dec.ny.gov](mailto:organicrecycling@dec.ny.gov)**

I certify, under penalty of law, that the information that will be used to determine compliance with the requirements in Subpart 361-3 of 6 NYCRR Part 361 has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that false statement made herein are punishable pursuant to section 210.45 of the penal law.

 _____ Signature	<u>2/28/2020</u> _____ Date
<b>KIRK TOMLINSON</b> _____ Name (Print)	DEPUTY DIRECTOR - COMPOSTING _____ Title (Print)
<b>KTOMLINSON@DSNY.NYC.GOV</b> _____ Email (Print)	
125 WORTH STREET - RM 726 _____ Address	<b>NEW YORK</b> _____ City
<b>NEW YORK 10013</b> _____ State and Zip	<b>212 437 4670</b> _____ Phone Number

ATTACHMENTS:  NO  YES (IF YES, LIST ATTACHMENTS)

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

New York State Department of Environmental Conservation  
Division of Materials Management  
Bureau of Waste Reduction and Recycling

## MATERIAL MANAGEMENT PROGRAM CONTACTS

### CENTRAL OFFICE

Bureau of Waste Reduction and Recycling  
625 Broadway  
Albany, NY 12233-7253  
Phone: (518) 402-8706

For Submission of Organics Recycling Annual Reports only:

Fax: (518) 402-9024

Email: [organicrecycling@dec.ny.gov](mailto:organicrecycling@dec.ny.gov)

### REGIONAL OFFICE ADDRESS & LEAD CONTACT PERSON

#### REGION 1 (Nassau, Suffolk)

Syed Rahman/David Gibb  
SUNY @ Stony Brook  
50 Circle Road  
Stony Brook, NY 11790  
Phone: (631) 444-0375  
SWMFannualreportR1@dec.ny.gov

#### REGION 2 (Bronx, Kings, New York, Queens, Richmond)

Joseph O'Connell  
47-40 21st Street  
Long Island City, NY 11101-5407  
Phone: (718) 482-4896  
SWMFannualreportR2@dec.ny.gov

#### REGION 3 (Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester)

James Lansing  
21 South Putt Corners Road  
New Paltz, NY 12561  
Phone: (845) 256-3123  
SWMFannualreportR3@dec.ny.gov

#### REGION 4 (Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie)

Victoria Schmitt  
1130 North Westcott Road  
Schenectady, NY 12306  
Phone: (518) 357-2243  
SWMFannualreportR4@dec.ny.gov

#### REGION 5 (Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington)

Jessie Sangster  
1115 State Route 86, PO Box 296  
Ray Brook, NY 12977  
Phone: (518) 897-1266  
SWMFannualreportR5@dec.ny.gov

#### REGION 6 (Herkimer, Jefferson, Lewis, Oneida, St. Lawrence)

Gary McCullouch  
317 Washington Street  
Watertown, NY 13601  
Phone: (315) 785-2513  
SWMFannualreportR6@dec.ny.gov

#### REGION 7 (Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins)

Thomas Annal  
615 Erie Boulevard West  
Syracuse, NY 13204  
Phone: (315) 426-7419  
SWMFannualreportR7@dec.ny.gov

#### REGION 8 (Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates)

Greg MacLean  
6274 East Avon-Lima Road  
Avon, NY 14414  
Phone: (585) 226-5411  
SWMFannualreportR8@dec.ny.gov

#### REGION 9 (Allegany, Cattaraugus, Chautauqua, Erie, Niagara, Wyoming)

Peter Grasso  
270 Michigan Avenue  
Buffalo, NY 14203  
Phone: (716) 851-7220  
SWMFannualreportR9@dec.ny.gov

December 2019



Analysis Report For:				Copy To:		
Ryan Cerrato WeCare Organics 3308 Bernice Ave Russellville AR 72801						
LAB ID:	SAMPLE ID:	REPORT DATE:	SAMPLE TYPE:	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C11216	Soundview Compost	02/04/2019	Finished Compost		Windrow	

## COMPOST ANALYSIS REPORT

### Compost Test 3A

Analyte	Results (As is basis)	Results (Dry weight basis)
pH	7.9	—
Soluble Salts (1:5 w:w)	0.56 mmhos/cm	—
Solids	49.6 %	—
Moisture	50.4 %	—
Organic Matter	14.2 %	28.6 %
Total Nitrogen (N)	0.5 %	1.0 %
Organic Nitrogen <sup>1</sup>	0.5 %	1.0 %
Ammonium N (NH <sub>4</sub> -N)	43.3 mg/kg <i>or</i> 0.0043 %	87.3 mg/kg <i>or</i> 0.0087 %
Carbon (C)	9.1 %	18.4 %
Carbon:Nitrogen (C:N) Ratio	17.90	17.90
Phosphorus (as P <sub>2</sub> O <sub>5</sub> ) <sup>2</sup>	0.16 %	0.32 %
Potassium (as K <sub>2</sub> O) <sup>2</sup>	0.14 %	0.27 %
Calcium (Ca)	1.42 %	2.87 %
Magnesium (Mg)	0.52 %	1.05 %
Particle size (< 9.5 mm)	94.22 %	—

<sup>1</sup> See comments on back of report.

<sup>2</sup> To convert phosphorus (as P<sub>2</sub>O<sub>5</sub>) into elemental phosphorus (P), divide by 2.29. To convert potassium (as K<sub>2</sub>O) into elemental potassium (K), divide by 1.20.

<sup>3</sup> Fecal Coliform subcontracted to Fairway Lab, Altoona, Pa

Sample arrived overnight and on ice. Sample collected 1/22/2019 at 2:00 PM



Analysis Report For:				Copy To:		
Ryan Cerrato WeCare Organics 3308 Bernice Ave Russellville AR 72801						
LAB ID	SAMPLE ID	REPORT DATE	SAMPLE TYPE	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C11216	Soundview Compost	02/04/2019	Finished Compost		Windrow	

**COMPOST BIOASSAY**  
**Seedling Emergence and Relative Growth**

TEST PARAMETERS	
<b>Test Dates:</b>	01/25/2019 to 02/01/2019
<b>Seed Type:</b>	Cucumber-Marketmore 76 Variety
<b>Media Type:</b> <i>(Control)</i>	Miracle Gro Moisture Control
<b>Vermiculite:</b>	NK Professional Grade

TEST RESULTS	
<b>Emergence:</b> <b>(% of control)</b>	90.00
<b>Seedling Vigor:</b> <b>(%):</b>	100.00

COMMENTS

## INTERPRETATION

The bioassay test provides a screen for the presence of phytotoxins in compost based on seedling emergence and seedling vigor relative to a control. It provides an assessment of compost maturity although should not be used as a stand-alone indicator. The U.S. Compost Council Test Methods for the Examination of Composting and Compost provides the following Maturity Indicator Ratings based on this test.

Test Parameter	Maturity Indicator Rating <sup>1</sup>		
	Very Mature	Mature	Immature
Emergence %	> 90	80-90	< 80
Seedling Vigor %	> 95	80-95	< 80

<sup>1</sup>Test Methods for the Examination of Composting and Composts (revised July 15, 2015)



Analysis Report For:				Copy To:		
Ryan Cerrato WeCare Organics 3308 Bernice Ave Russellville AR 72801						
LAB ID	SAMPLE ID	REPORT DATE	SAMPLE TYPE	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C11216	Soundview Compost	02/04/2019	Finished Compost		Windrow	

**RESPIROMETRY**  
**Carbon Dioxide (CO<sub>2</sub>) Evolution Rate**

TEST RESULTS	
mg CO <sub>2</sub> -C/g solids/day:	0.1
mg CO <sub>2</sub> -C/g organic matter/day:	0.3





Analysis Report For:				Copy To:		
Ryan Cerrato WeCare Organics 3308 Bernice Ave Russellville AR 72801						
LAB ID:	SAMPLE ID:	REPORT DATE:	SAMPLE TYPE:	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C11658	Soundview Yard Waste (Month: 6/2019)	06/28/2019	Finished Compost		Windrow	

## COMPOST ANALYSIS REPORT

*Compost Test 3B*

Analyte	Results (As is basis)	Results (Dry weight basis)
pH	7.1	—
Soluble Salts (1:5 w:w)	0.52 mmhos/cm	—
Solids	49.1 %	—
Moisture	50.9 %	—
Organic Matter	15.1 %	30.7 %
Total Nitrogen (N)	0.5 %	1.0 %
Organic Nitrogen <sup>1</sup>	0.5 %	1.0 %
Ammonium N (NH <sub>4</sub> -N)	< 2.3 mg/kg or < 0.0002 %	< 4.8 mg/kg or < 0.0005 %
Carbon (C)	9.2 %	18.7 %
Carbon:Nitrogen (C:N) Ratio	18.20	18.20
Phosphorus (as P <sub>2</sub> O <sub>5</sub> ) <sup>2</sup>	0.16 %	0.32 %
Potassium (as K <sub>2</sub> O) <sup>2</sup>	0.12 %	0.24 %
Calcium (Ca)	1.93 %	3.92 %
Magnesium (Mg)	0.79 %	1.61 %
Particle size (<9.5 mm)	97.47 %	—

<sup>1</sup>See comments on back of report

<sup>2</sup>To convert phosphorus (as P<sub>2</sub>O<sub>5</sub>) into elemental phosphorus (P), divide by 2.29. To convert potassium (as K<sub>2</sub>O) into elemental potassium (K), divide by 1.20.

Sampled 6/17/2019 @ 2:00 PM. Was overnight in cooler, ice melted. Sample arrived 6/18/19 at 10:40 AM



Analysis Report For:				Copy To:		
Ryan Cerrato WeCare Organics 3308 Bernice Ave Russellville AR 72801						
LAB ID	SAMPLE ID	REPORT DATE	SAMPLE TYPE	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C11658	Soundview Yard Waste (Month: 6/2019)	06/28/2019	Finished Compost		Windrow	

**COMPOST BIOASSAY**  
**Seedling Emergence and Relative Growth**

TEST PARAMETERS	
<b>Test Dates:</b>	06/21/2019 to 06/28/2019
<b>Seed Type:</b>	Cucumber-Marketmore 76 Variety
<b>Media Type:</b> <i>(Control)</i>	Miracle Gro Moisture Control
<b>Vermiculite:</b>	NK Professional Grade

TEST RESULTS	
<b>Emergence:</b> <b>(% of control)</b>	96.67
<b>Seedling Vigor:</b> <b>(%):</b>	100.00

COMMENTS

## INTERPRETATION

The bioassay test provides a screen for the presence of phytotoxins in compost based on seedling emergence and seedling vigor relative to a control. It provides an assessment of compost maturity although should not be used as a stand-alone indicator. The U.S. Compost Council Test Methods for the Examination of Composting and Compost provides the following Maturity Indicator Ratings based on this test.

Test Parameter	Maturity Indicator Rating <sup>1</sup>		
	Very Mature	Mature	Immature
<u>Emergence %</u>	<u>&gt; 90</u>	<u>80-90</u>	<u>&lt; 80</u>
<u>Seedling Vigor %</u>	<u>&gt; 95</u>	<u>80-95</u>	<u>&lt; 80</u>

<sup>1</sup>Test Methods for the Examination of Composting and Composts (revised July 15, 2015)



Analysis Report For:				Copy To:		
Ryan Cerrato WeCare Organics 3308 Bernice Ave Russellville AR 72801						
LAB ID	SAMPLE ID	REPORT DATE	SAMPLE TYPE	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C11658	Soundview Yard Waste (Month: 6/2019)	06/28/2019	Finished Compost		Windrow	

**RESPIROMETRY**  
**Carbon Dioxide (CO<sub>2</sub>) Evolution Rate**

TEST RESULTS	
<b>mg CO<sub>2</sub>-C/g solids/day:</b>	0.2
<b>mg CO<sub>2</sub>-C/g organic matter/day:</b>	0.7

## INTERPRETATION

Respirometry (CO<sub>2</sub> evolution) provides a measurement of the relative microbial activity in a compost and can therefore be used as an estimate of compost stability. The interpretive index below assumes optimal conditions for microbial activity are present including temperature, moisture and nutrients, and that toxic components that would inhibit microbial respiration are absent.

Result <sup>1</sup>	Stability Rating <sup>2</sup>	General Characteristics
< 1	Very stable	Well cured compost No continued decomposition No odors No potential for volatile fatty acid phytotoxicity
1-2	Stable	Moderately well cured compost Odor production not likely Limited potential for volatile fatty acid phytotoxicity Minimal to no impact on soil carbon and nitrogen dynamics
2-5	Moderately unstable, curing compost	Curing compost Odor production not likely Limited potential for volatile fatty acid phytotoxicity Minor impact on soil carbon & nitrogen dynamics
6-9	Unstable, raw compost	Active, uncured compost Minimal odor production Moderate to high potential for volatile fatty acid phytotoxicity Moderate potential for negative impact on soil carbon & nitrogen dynamics
10-11	Raw compost, raw organic products	Highly active, uncured compost Odor production likely High potential for volatile fatty acid phytotoxicity High potential for negative impact on soil carbon & soil nitrogen dynamics
>11	Raw feedstock, unstabilized material	Raw, extremely unstable material Odor production expected Probable volatile fatty acid phytotoxicity with most materials Negative impact on soil carbon & soil nitrogen dynamics expected

<sup>1</sup>Units in mg CO<sub>2</sub>-C/g organic matter/day

<sup>2</sup>Test Methods for the Examination of Composting and Composts (revised July 15, 2015)



Analysis Report For:				Copy To:		
Ryan Cerrato WeCare Organics 3308 Bernice Ave Russellville AR 72801						
LAB ID:	SAMPLE ID:	REPORT DATE:	SAMPLE TYPE:	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C10829	Soundview Compost	08/24/2018	Finished Compost		Windrow	

## COMPOST ANALYSIS REPORT

*Compost Test 3B*

Analyte	Results (As is basis)	Results (Dry weight basis)
pH	7.2	—
Soluble Salts (1:5 w:w)	2.51 mmhos/cm	—
Solids	46.0 %	—
Moisture	54.0 %	—
Organic Matter	17.4 %	37.9 %
Total Nitrogen (N)	0.7 %	1.4 %
Organic Nitrogen <sup>1</sup>	0.7 %	1.4 %
Ammonium N (NH <sub>4</sub> -N)	2.7 mg/kg or 0.0003 %	5.9 mg/kg or 0.0006 %
Carbon (C)	9.6 %	20.8 %
Carbon:Nitrogen (C:N) Ratio	14.50	14.50
Phosphorus (as P <sub>2</sub> O <sub>5</sub> ) <sup>2</sup>	0.20 %	0.43 %
Potassium (as K <sub>2</sub> O) <sup>2</sup>	0.19 %	0.41 %
Calcium (Ca)	1.71 %	3.71 %
Magnesium (Mg)	0.63 %	1.38 %
Particle size (< 9.5 mm)	93.12 %	—

<sup>1</sup>See comments on back of report

<sup>2</sup>To convert phosphorus (as P<sub>2</sub>O<sub>5</sub>) into elemental phosphorus (P), divide by 2.29. To convert potassium (as K<sub>2</sub>O) into elemental potassium (K), divide by 1.20.

Sample did arrive overnight, not on ice. Sampled 8/16/2018 @ 12:30 PM

## INTERPRETATION

<b>pH</b>	pH is a measure of active acidity in the feedstock or compost. The pH scale is 0 (acidic) to 14 (basic) with 7 being neutral. Most finished composts will have pH values in the range of 5.0 to 8.5. Ideal pH depends on compost use. A lower pH is preferred for certain ornamental plants while a neutral pH is suitable for most other applications. pH is not a measure of the total acidity or alkalinity and cannot be used to predict the effect of compost on soil pH.
<b>Soluble Salts</b>	Soluble salts are determined by measuring electrical conductivity (EC) in a 1:5 (compost:water, weight ratio) slurry. EC is related to the total soluble salts dissolved in the slurry and is measured in units of millimhos/cm (mmhos/cm). Compost soluble salt levels typically range from 1 to 10 mmhos/cm. High salinity may be toxic to plants. Ideal soluble salt levels will depend on the end use of the compost. Final compost blends with soil or container media/potting mixes should be tested for soluble salts.
<b>% Solids, % Moisture</b>	The ideal moisture content for composting will depend on the water holding capacity of the materials being composted. In general, high organic matter materials have a higher water holding capacity and a higher ideal moisture content. A typical starting compost mix will have an ideal % solids content of 35-55 % (65-45 % moisture). Finished compost should have a % solids content of 50-60 % (50-40 % moisture).
<b>% Organic Matter</b>	There is no ideal organic matter level for feedstocks or finished compost. Organic matter content will decrease during composting. The organic matter content (dry weight basis) of typical feedstocks and starting mixes will be greater than 60 % while that of finished compost will be in the range of 30-70 %. An organic matter content (dry weight basis) of 50-60 % is desirable for most compost uses.
<b>Nitrogen : Total, Organic, Ammonium, and Nitrate</b>	Total nitrogen (N) includes all forms of nitrogen: organic N, ammonium N ( $\text{NH}_4\text{-N}$ ), and nitrate N ( $\text{NO}_3\text{-N}$ ). Total N will normally range from less than 1 % to around 5 % (dry weight basis) in most feedstocks and from 0.5 to 2.5 % (dry weight basis) in finished composts. $\text{NO}_3\text{-N}$ (an optional test) is generally present in only low concentrations in immature composts, although it may increase as the compost matures. $\text{NH}_4\text{-N}$ levels may be high during initial stages of the composting process, but decrease as maturity increases. Organic N is determined by subtracting the inorganic N forms, $\text{NH}_4\text{-N}$ and $\text{NO}_3\text{-N}$ , from total N. However, because $\text{NO}_3\text{-N}$ levels are generally very low, total nitrogen minus $\text{NH}_4\text{-N}$ provides a good estimate of organic N in most composts and is the value shown on the front of this report. In stable, finished composts, most of the N should be in the organic form. While $\text{NH}_4\text{-N}$ and $\text{NO}_3\text{-N}$ are immediately available to plants, organic N is only slowly available, approximately 10 to 20 % per year. However, mineralization or break-down of organic N into available inorganic forms depends on the C:N ratio (see below) as well as factors such as soil moisture and temperature.
<b>Total Carbon</b>	Total carbon (C) is a direct measurement of all organic and inorganic carbon in the compost sample. Unless the sample has a high pH (> 8.3) or is known to contain carbonates, essentially all carbon will be in the organic form. Compost organic matter typically contains around 54 % organic carbon by weight. The carbon content of individual feedstocks may vary from this ratio.
<b>Carbon: Nitrogen Ratio</b>	This is the ratio of total carbon (C) to total nitrogen (N) in the compost sample provided. C:N ratio may be used as an indicator of compost stability and N availability. Compost C:N ratio typically decreases during composting if the starting C:N ratio is > 25, but may increase if the starting C:N ratio is low (< 15) and N is lost during the composting process. Composts with high C:N ratios (> 30) will likely immobilize or tie-up N if applied to soil, while those with low C:N ratios (< 20) will mineralize or break-down organic N to inorganic (plant-available) N.
<b>Phosphorus, Potassium</b>	Phosphorus (P) and potassium (K) are plant macronutrients. Values reported are for total amounts given in the oxide forms ( $\text{P}_2\text{O}_5$ and $\text{K}_2\text{O}$ ). These results provide an indication of the nutrient value of the compost sample. However, plant availability of total phosphorus and potassium in compost has not yet been established.
<b>Nitrogen, Phosphorus, Potassium Balance</b>	When compost is applied on the basis of nitrogen (N), most composts will have an excess of phosphorus (P) and potassium (K) relative to crop demand. These mineral elements and salts can accumulate to above optimum levels with repeated application. Growers using compost should regularly soil test to monitor P, K, and salt accumulation and should consider using other nutrient sources or nitrogen fixing legumes in their crop rotation especially when P and K levels are above optimum.





Analysis Report For:				Copy To:		
Ryan Cerrato WeCare Organics 3308 Bernice Ave Russellville AR 72801						
LAB ID	SAMPLE ID	REPORT DATE	SAMPLE TYPE	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C10829	Soundview Compost	08/24/2018	Finished Compost		Windrow	

**COMPOST BIOASSAY**  
**Seedling Emergence and Relative Growth**

TEST PARAMETERS	
<b>Test Dates:</b>	08/17/2018 to 08/24/2018
<b>Seed Type:</b>	Cucumber-Marketmore 76 Variety
<b>Media Type:</b> <i>(Control)</i>	Miracle Gro Moisture Control
<b>Vermiculite:</b>	NK Professional Grade

TEST RESULTS	
<b>Emergence:</b> <i>(% of control)</i>	100.00
<b>Seedling Vigor:</b> <i>(%)</i>	100.00

COMMENTS

## INTERPRETATION

The bioassay test provides a screen for the presence of phytotoxins in compost based on seedling emergence and seedling vigor relative to a control. It provides an assessment of compost maturity although should not be used as a stand-alone indicator. The U.S. Compost Council Test Methods for the Examination of Composting and Compost provides the following Maturity Indicator Ratings based on this test.

Test Parameter	Maturity Indicator Rating <sup>1</sup>		
	Very Mature	Mature	Immature
<u>Emergence %</u>	<u>≥ 90</u>	<u>80-90</u>	<u>&lt; 80</u>
<u>Seedling Vigor %</u>	<u>≥ 95</u>	<u>80-95</u>	<u>&lt; 80</u>

<sup>1</sup>Test Methods for the Examination of Composting and Composts (revised July 15, 2015)



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C10829	Soundview Compost	08/24/2018	Finished Compost		Windrow	

**RESPIROMETRY**  
**Carbon Dioxide (CO<sub>2</sub>) Evolution Rate**

TEST RESULTS	
mg CO <sub>2</sub> -C/g solids/day:	0.2
mg CO <sub>2</sub> -C/g organic matter/day:	0.4

## INTERPRETATION

Respirometry (CO<sub>2</sub> evolution) provides a measurement of the relative microbial activity in a compost and can therefore be used as an estimate of compost stability. The interpretive index below assumes optimal conditions for microbial activity are present including temperature, moisture and nutrients, and that toxic components that would inhibit microbial respiration are absent.

Result <sup>1</sup>	Stability Rating <sup>2</sup>	General Characteristics
< 1	Very stable	Well cured compost No continued decomposition No odors No potential for volatile fatty acid phytotoxicity
1-2	Stable	Moderately well cured compost Odor production not likely Limited potential for volatile fatty acid phytotoxicity Minimal to no impact on soil carbon and nitrogen dynamics
2-5	Moderately unstable, curing compost	Curing compost Odor production not likely Limited potential for volatile fatty acid phytotoxicity Minor impact on soil carbon & nitrogen dynamics
6-9	Unstable, raw compost	Active, uncured compost Minimal odor production Moderate to high potential for volatile fatty acid phytotoxicity Moderate potential for negative impact on soil carbon & nitrogen dynamics
10-11	Raw compost, raw organic products	Highly active, uncured compost Odor production likely High potential for volatile fatty acid phytotoxicity High potential for negative impact on soil carbon & soil nitrogen dynamics
>11	Raw feedstock, unstabilized material	Raw, extremely unstable material Odor production expected Probable volatile fatty acid phytotoxicity with most materials Negative impact on soil carbon & soil nitrogen dynamics expected

<sup>1</sup>Units in mg CO<sub>2</sub>-C/g organic matter/day

<sup>2</sup>Test Methods for the Examination of Composting and Composts (revised July 15, 2015)