

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

RECEIVED  
FEB 13 2020  
REGION IV HEADQUARTERS  
SCHENECTADY, NY 12306

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.

FACILITY NAME: Mohican Farm/Clark Foundation  
SW FACILITY ACTIVITY NUMBER(S): (Ex. 02P20099) ~~39-C-07~~ 39 P16001 39 P26001  
COUNTY WHERE FACILITY IS LOCATED: Otsego

DEC USE ONLY  
Region: SWIMS:  
MATRIX:  
Date Reviewed:  
Reviewed By:  
Data Entered:

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

**RECEIVED**

FEB 13 2020

REGION IV HEADQUARTERS  
SCHENECTADY, NY 12306

FACILITY INFORMATION			
<b>FACILITY NAME:</b> Mohican Farm/ Clark Foundation			
<b>FACILITY LOCATION ADDRESS:</b> 7195 State Highway 80	<b>FACILITY CITY:</b> Cooperstown	<b>STATE:</b> NY	<b>ZIP CODE:</b> 13326
<b>FACILITY TOWN:</b> Springfield	<b>FACILITY COUNTY:</b> Otsego	<b>FACILITY PHONE NUMBER:</b> 607-437-2585	
<b>NYSDEC REGION #:</b> Region 4			
<b>FACILITY CONTACT:</b> Devin Merkley		<b>CONTACT PHONE NUMBER:</b> 315-269-0943	
<b>CONTACT EMAIL ADDRESS:</b> devmerkley@gmail.com			
OWNER INFORMATION			
<b>OWNER NAME:</b> Clark Foundation		<b>OWNER PHONE NUMBER:</b> 607-547-2563	
<b>OWNER ADDRESS:</b> 19 Main Street PO Box 510	<b>OWNER CITY:</b> Cooperstown	<b>STATE:</b> NY	<b>ZIP CODE:</b> 13326
<b>OWNER CONTACT:</b> Robert Sutherland	<b>OWNER CONTACT EMAIL ADDRESS:</b> rtsutherland.mohicanfarm@gmail.com		
OPERATOR INFORMATION			
<b>OPERATOR NAME:</b> <input type="checkbox"/> Same as owner Devin Merkley			
PREFERENCES			
<b>Preferred address to receive correspondence:</b> <input checked="" type="radio"/> Facility location address <input type="radio"/> Owner address <input type="radio"/> Other (provide):			
<b>Preferred email address:</b> <input checked="" type="radio"/> Facility Contact <input type="radio"/> Owner Contact <input type="radio"/> Other (provide):			
<b>Preferred individual to receive correspondence:</b> <input checked="" type="radio"/> Facility Contact <input type="radio"/> Owner <input type="radio"/> Owner Contact <input type="radio"/> Other (provide):			
<b>Did you operate in 2019?</b> <input checked="" type="radio"/> Yes; Complete this form. <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.			

## 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		Cubic Yards <input type="text" value=""/>	
	Grass Clippings		Cubic Yards <input type="text" value=""/>	
	Mixture of Grass and Leaves	100	Cubic Yards <input type="text" value=""/>	Mohican Farm (onsite)
	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.)	125	Tons <input type="text" value=""/>	Otesaga Hotel/Thanksgiving Home
<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: _____		Choose Units	
<b>BULKING AGENT</b>	Woodchips	250	Cubic Yards <input type="text" value=""/>	Local Tree Services
	Sawdust		Choose Units	
	Other: _____		Choose Units	





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.**



Analysis Report For:				Copy To:		
Clark Foundation 19 Main St; PO Box 510 Cooperstown NY 13326				Devin Merkley 7195 St Hwy 80 Coopertown NY 13326		
LAB ID:	SAMPLE ID:	REPORT DATE:	SAMPLE TYPE:	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C12162	Mohican Farm	01/24/2020	Finished Compost		Static Pile-Forced aeration	

## COMPOST ANALYSIS REPORT

*Compost Test 1C*

Analyte	Results (As is basis)	Results (Dry weight basis)
pH	7.3	—
Soluble Salts (1:5 w:w)	0.90 mmhos/cm	—
Solids	48.5 %	—
Moisture	51.5 %	—
Organic Matter	22.0 %	45.5 %
Total Nitrogen (N)	1.14 %	2.35 %
Organic Nitrogen <sup>1</sup>	1.14 %	2.35 %
Ammonium N (NH <sub>4</sub> -N)	3.6 mg/kg or 0.0004 %	7.3 mg/kg or 0.0007 %
Carbon (C)	12.3 %	25.4 %
Carbon:Nitrogen (C:N) Ratio	10.80	10.80
Phosphorus (as P <sub>2</sub> O <sub>5</sub> ) <sup>2</sup>	0.970 %	2.000 %
Potassium (as K <sub>2</sub> O) <sup>2</sup>	0.21 %	0.44 %
Calcium (Ca)	2.53 %	5.21 %
Magnesium (Mg)	0.17 %	0.35 %
Sulfur (S)	0.13 %	0.27 %
Sodium (Na)	512 mg/kg	1056 mg/kg
Aluminum (Al)	2813.38 mg/kg	5803.40 mg/kg
Iron (Fe)	5744.89 mg/kg	11850.48 mg/kg
Manganese (Mn)	255.31 mg/kg	526.65 mg/kg
Copper (Cu)	12.37 mg/kg	25.53 mg/kg
Zinc (Zn)	71.18 mg/kg	146.84 mg/kg

<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.

### SECTION 6 – FINISHED COMPOST ANALYSIS

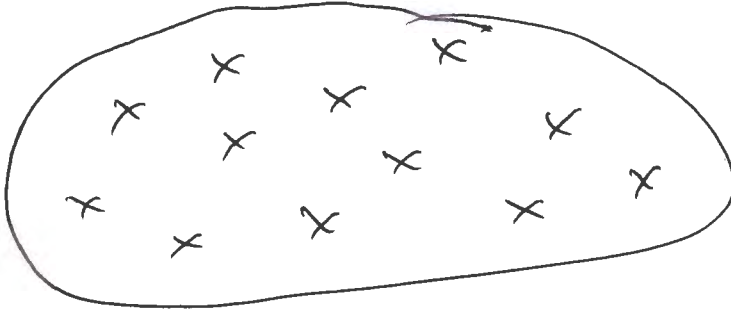
For permitted SSOW composting facilities only. Please attach sampling analyses and laboratory reports as required under Part 360 or your permit. Copies of original laboratory results must be attached. All results, except pH and Total Solids, must be on a dry weight basis. See 361-3.9 Table 6 for pollutant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

## 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.



- ⊙ CORE SAMPLES TAKEN AND COMBINED
- ⊙ TEST PERFORMED ANNUALLY ON FINISHED COMPOST
- ⊙ SAMPLE SENT TO PENN STATE FOR ANALYSIS

## 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.

## **SECTION 11 – QUESTIONS**

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

## 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**: 125-150 Tons

B. Amount of foods scraps projected to be processed in **2022**: 125-150 Tons

\* 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.

Devin R. Merkley  
Signature

2/6/2020  
Date

Devin Merkley  
Name (Print)

Compost Manager  
Title (Print)

devmerkley@gmail.com  
Email (Print)

7195 State Highway 80  
Address

Cooperstown  
City

New York 13326  
State and Zip

(315) 269 0943  
Phone Number

ATTACHMENTS:  NO  YES (IF YES, LIST ATTACHMENTS)

- Penn State Compost Analysis
- Compost Record Sheets
- \_\_\_\_\_

THE CLARK FOUNDATION

Mohican Farm

Compost Data Sheet

JANUARY 2019

Month/Year

12/14

12/11

12/12

12/28

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1								
2	148	146	133	158				
3								
4	140	146	138	162				
5								
6								
7								
8	134	132	126	162				
9	130	126	130	158				
10								
11								
12								
13								
14	114	94	96	140				
15								
16	110	80	84	141				
17	112	82	82	146				
18	101	80	80	140				
19								
20								
21								
22	74	↓	↓	129				
23								
24								
25	70	70	<del>144</del> 150	144				
26		START	START					
27								
28	40	159	168	134				
29								
30		140	140	124				
31								

140

158

121

(2)

Month/Year

1/26

1/26

12/28

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1								
2								
3								
4	START	150	154	128				
5	100	142	158	OUT				
6	130	139	162	START				
7	141	140	161	110				
8	150	125	151	169				
9								
10								
11	148	128	142	162				
12	178	129	142	140				
13	168	136	154	160				
14	162	136	132	148				
15								
16								
17								
18	152	138	130	128				
19								
20								
21								
22								
23								
24								
25	142	164	98	102				
26	152	164	120	112				
27			OUT					
28	138	101	START	104				
29		START						
30								
31								



THE CLARK FOUNDATION  
 Mohican Farm  
 Compost Data Sheet

March 2019

Month/Year

~~1/26~~ 2/29 2/27 2/6

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1								
2								
3	146	164	128	OUT				
4	128	164	120	START				
5								
6	134	164	120	168				
7	OUT/START							
8	50	161	95	162				
9	120	160	117	161				
10			ADDED					
11								
12	140	162	162	162				
13	132	154	154	158				
14	132	154	158	158				
15	128	142	158	152				
16	124	140	151	159				
17								
18	110	139	147	143				
19								
20	118	129	140	140				
21	105	142	142	138				
22								
23								
24	85	122	120 OUT	130				
25								
26								
27	75	134	1 START	122				
28	70	129	164	129				
29								
30								
31								

**THE CLARK FOUNDATION**  
**Mohican Farm**  
**Compost Data Sheet**

APRIL 2019

Month/Year

2/29    3/22    3/4

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1	127	130	158	124				
2	150	132	160	124				
3	138	OUT 100	158	128				
4	130	118	140	120				
5	132	130	146	124				
6								
7								
8	138	148	138	128				
9	1							
10	138	145	130	118				
11	128	144	140	122				
12	126	140	138	120				
13								
14								
15	128	130	138	126				
16				New				
17	124	100	130	90				
18	New	New						
19								
20								
21								
22	158	152	138	152				
23	160	148	130	148				
24	152	140	128	140				
25	152	130	126	136				
26	149	131	129	139				
27								
28								
	136	122	116	120				
	130	122	112	112	Filled	Filled		



THE CLARK FOUNDATION  
 Mohican Farm  
 Compost Data Sheet

May '19  
 Month/Year 5/14

Date	9/10 S-1	4/13 S-2	<del>5/13</del> S-3	4/16 S-4	N1	N2	N3	N4
1					<del>New</del>	<del>New</del>	New	New
2	120	100	94	108	<del>172</del>	<del>172</del>	172	170
3								
4								
5								
6	110	112	92	88			148	138
7	112	110	98	92			158	154
8	106	106	96	90			158	150
9								
10	118	112	108	98			148	142
11							140	142
12								
13	130	88	94/New	98	New	New	140	142
14	130		158	112		120	170	122
15	126	154	158	118	152	150	104	110
16								
17								
18								
19								
20								
21	142	148	142	120	160	158	100	90
22	140	148	144	124	154	162		
23	148	144	150	136	158	164	100	
24				142				
25								
26								
27								
28	144	140	140	142	120	122	164	158
29								
30	138	134	124	144	132	128	160	158
31	114							

THE CLARK FOUNDATION  
 Mohican Farm  
 Compost Data Sheet

June 2019

Month/Year

Closest

Farthest Farthest

Closest

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1								
2								
3								
4								
5	110	120	116	122	150	156	118	118
6	New	106	116	New	150	162	118	New
7								
8								
9								
10	166	118	124	152	142	160	138	158
11	64	98	100	146				
12	64	98	100	146	138	150	128	158
13								
14	154	118	106	146	138	152	New	140
15								
16								
17	146	120	116	142	148	150	164	150
18	146	116	124	148	142	146	159	152
19	138	120	120	142	132	142	146	144
20	132	New	New	144	128	138	142	144
21	142	160	166	144	New	New	148	130
22	<del>150</del>	<del>148</del>	<del>156</del>	<del>138</del>	<del>158</del>	<del>152</del>	<del>144</del>	<del>136</del>
23								
24	150	148	156	138	158	152	144	136
25	154	150	158	142	158	154	138	132
26	142	160	150	160	158	150	136	130
27	146	140	142	134	148	150	138	114
28								
29								
30								
31								



THE CLARK FOUNDATION  
 Mohican Farm  
 Compost Data Sheet

July 2019

Month/Year

Date	Closest		Farthest Farthest				Closest	
	7-8 S-1	7-11 S-2	7-17 S-3	7-8 S-4	7-20 N1	7-25 N2	7-11 N3	7-11 N4
1	150	140	132	130	146	140	128	110
2								
3	132	128	136	152	150	140	124	110
4								
5								
6								
7								
8	New			New				
9	168	146	144	162	142	138		
10								
11	154	138	138	158	140	134	New	New
12	152	140	136	156	140	138	158	160
13								
14								
15	142	128	128	150	140	138	146	150
16								
17	138	New	New	146	138	138	140	150
18	136	162	160	152	140	136	144	150
19								
20					New			
21								
22								
23								
24	112	142	144	134	138	—	134	132
25	134	136	140	132	134	New	132	134
26	128	132	138	138	134	166	144	148
27								
28								
29	126	132	136	134	130	150	128	128
30								
31								



**THE CLARK FOUNDATION**  
**Mohican Farm**  
**Compost Data Sheet**

August 2019  
 Month/Year  
 Closest

← Furthest →

Closest

Date	8-22 S-1	8-13 S-2	8-19 S-3	8-22 S-4	8-26 N1	8-21 N2	8-12 N3	8-12 N4
1	132	130	128	130	122	140	132	130
2								
3								
4								
5								
6								
7	<del>100</del>	94	100	<del>100</del>	100	132	116	118
8	x	100	106		100	132	121	122
9								
10	<del>100</del>							
11								
12	New	84	90	New	94	102	New	New
13		New						
14								
15			out					
16	140	150		142	118	116	142	146
17								
18								
19	134	134	New	138	120	120	140	140
20	122	130	158	142	122	118	130	130
21	114	130	158	144	<del>120</del>		132	130
22	136	128	150	136	<del>100</del>	160	148	142
23	124	122	144	132		152	136	130
24								
25								
26	98	98	142	132	New	130	124	120
27	102	102	138	120	146	144	132	124
28								
29								
30								
31								

September 2014  
 Month/Year

Compost Data Sheet

Date	9.10 S-1	9.10 S-2	9.23 S-3	9.10 S-4	8.26 N1	8.21 N2	9.17 N3	9.17 N4
1								
2								
3	84	90	118	118	140	120	114	110
4								
5	88	88	122	114	128	120	110	110
6								
7								
8								
9	74	76	110	106	128	114	112	104
10	New	New		New				
11								
12								
13								
14								
15								
16								
17	126	138	120	126	118	110	New	New
18								
19	120	138	120	122	114	108	148	142
20								
21								
22								
23	82	86	New	90	98	122	148	148
24								
25								
26	128	150	142	138	122	124	142	138
27								
28								
29								
30								
31								

(6)

THE CLARK FOUNDATION  
 Mohican Farm  
 Compost Data Sheet

October 2019

Month/Year

Date	10/16 S-1	9/21 S-2	9/23 S-3	9/10 S-4	9/30 N1	8/21 N2	9/17 N3	9/17 N4
1								
2	88	128	110	102	149	117	132	121
3								
4								
5								
6								
7								
8								
9								
10	90	92	98	102	102	101	100	90
11								
12								
13								
14								
15								
16	New							
17	128	<del>90</del>	92	90	100			
18	144	90	92	90	<del>Start</del>			
19				New				
20								
21	140	New	85	154	160			
22	138	130	85	154				
23	136	125	<del>90</del>	152				
24					New	New		
25							New	New
26								
27								
28	120	130	122	140	128	140	140	
29			New					
30								
31	130	130	162	141	121	120		



November 2019

Compost Data Sheet

Month/Year

Date	10/16 S-1	<del>10/21</del> S-2	10/29 S-3	<del>10/29</del> S-4	10/24 N1	10/24 N2	<del>10/25</del> N3	<del>10/25</del> N4
1	118	125	148	129	129	110	120	132
2								
3								
4	108	88	142	115	70			
5								
6	78	<del>210</del>	109	110	70	70	72	74
7								
8								
9								
10	START							
11	65	START	92	84	50	52	54	58
12	142	154	100	START				
13								
14								
15								
16								
17								
18	138	144	136	148	100	82	50	50
19								
20								
21	110	138	131	157	90	56	START	START
22	128	136	126	152	100	X	169	160
23								
24								
25								
26	100	116	132	134	START	START	170	150
27	82	116	130	132	160	164	160	152
28								

1/16/2014 2014

Compost Data Sheet

Month/Year  
11/10

~~11/11~~

~~10/29~~

~~11/12~~

11/26

11/26

11/21

11/21

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1								
2								
3								
4	108	82	79	OUT	106	138	132	100
5				START				
6								
7								
8								
9								
10	100	100	60	176				
11	106	100	START	176				
12	100	100	140	140				
13	90	90	142	158				
14	90	90	150	159				
15	90	90	150	160				
16	82	83	142	155				
17	89	83	142	152				
18	82	83	142	150				
19	86	90	129	130				
20	79	80	129	130				
21	75	80	120	129				
22	75	75	111	100				
23	75	75	100	100				
24	70	70	100	90				
25	70	70		90				
26	70	START						
27	70	50	60	76				
28		165						
29		166						
30		168						
31		169						

(3)