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

2020

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, 2020 to December 31, 2020

Annual Report Form Due: No Later than March 1, 2021

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.

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~~ 39P160001 39P260001

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 22 2021

FACILITY INFORMATION

FACILITY NAME: Mohican Farm/Clark Foundation

FACILITY LOCATION ADDRESS:	FACILITY CITY:	STATE:	ZIP CODE:
7195 Hwy 80	Cooperstown	NY	13326

FACILITY TOWN:	FACILITY COUNTY:	FACILITY PHONE NUMBER:
Springfield	Otsego	607-437-2585

NYSDEC REGION #: Region 4

FACILITY CONTACT:	CONTACT PHONE NUMBER:
Devin Merkley	315-269-0943

CONTACT EMAIL ADDRESS: devmerkley@gmail.com

OWNER INFORMATION

OWNER NAME:	OWNER PHONE NUMBER:
Clark Foundation	607-547-2563

OWNER ADDRESS:	OWNER CITY:	STATE:	ZIP CODE:
19 Main St	Cooperstown	NY	13326

OWNER CONTACT:	OWNER CONTACT EMAIL ADDRESS:
Robert Sutherland	rtsutherland.mohicanfarm@gmail.com

OPERATOR INFORMATION

OPERATOR NAME: ☐ *Same as owner* Devin Merkley

PREFERENCES

Preferred address to receive correspondence: ◉ *Facility location address* ○ *Owner address* ○ *Other (provide):*

Preferred email address: ◉ *Facility Contact* ○ *Owner Contact* ○ *Other (provide):*

Preferred individual to receive correspondence: ◉ *Facility Contact* ○ *Owner* ○ *Owner Contact* ○ *Other (provide):*

Did you operate in 2020? ◉ **Yes; Complete this form.**

○ **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, 2020 to December 31, 2020

	Inputs	Quantity	Unit	Source(s)
YARD WASTE	Leaves only		Choose Units	
	Grass Clippings		Choose Units	
	Mixture of Grass and Leaves	100	Cubic Yards	
	Brush (Small branches and limbs, <4 inch diameter)		Choose Units	
SSO	Source Separated Organics (Food scraps, soiled paper products, etc.)		Choose Units	
	Food Processing Waste (brewery grains, grape pomace, etc.)	43.25	Tons	
OTHER	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	
BULKING AGENT	Woodchips	250	Cubic Yards	
	Sawdust		Choose Units	
	Other: _____		Choose Units	

SECTION 3 – COMPOST PRODUCTION

WHAT IS THE PROCESS DETENTION TIME? ***Note: Total time material is processed, not Including storage time***	180	**days**
COMPOST PRODUCED DURING THE YEAR:	211	Cubic Yards
COMPOST DISTRIBUTED DURING THE YEAR:	100	Cubic Yards
QUANTITY CURRENTLY STOCKPILED: ***Note: Finished product stockpiled***	50	Cubic Yards
AGE OF OLDEST PRODUCT ON SITE:	24	**months**

SECTION 4 – COMPOST DISTRIBUTION

Quantity Distributed Cubic Yards	Use of Compost (landscaping, agriculture, highway, onsite, bagged, etc.)
25	Tree care companies (trade for chips)
25	Garden Clubs, Church etc
50	On site

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, ≥40C, ≥45 C avg.

IMPORTANT NOTE!

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.

PennState Extension

Agricultural Analytical Services Laboratory
The Pennsylvania State University
111 Ag Analytical Svcs Lab
University Park, PA 16802

(814) 863-0841 aaslab@psu.edu www.aasl.psu.edu

Analysis Report For:	Copy To:
Clark Foundation 19 Main St; PO Box 510 Cooperstown NY 13326	

LAB ID:	SAMPLE ID:	REPORT DATE:	SAMPLE TYPE:	FEEDSTOCKS	COMPOSTING METHOD	COUNTY
C12966	Mohican Farm	01/29/2021	Finished Compost		Static Pile-Forced aeration	

COMPOST ANALYSIS REPORT

Compost Test 1C

Analyte	Results (As is basis)	Results (Dry weight basis)
pH	7.2	—
Soluble Salts (1:5 w:w)	0.91 mmhos/cm	—
Solids	90.1 %	—
Moisture	9.9 %	—
Organic Matter	41.6 %	46.1 %
Total Nitrogen (N)	2.26 %	2.50 %
Organic Nitrogen[1]	2.25 %	2.50 %
Ammonium N (NH_4-N)	8.2 mg/kg *or* 0.0008 %	9.1 mg/kg *or* 0.0009 %
Carbon (C)	24.6 %	27.3 %
Carbon:Nitrogen (C:N) Ratio	10.90	10.90
Phosphorus (as P_2O_5)[2]	1.709 %	1.897 %
Potassium (as K_2O)[2]	0.43 %	0.48 %
Calcium (Ca)	4.28 %	4.75 %
Magnesium (Mg)	0.29 %	0.33 %
Sulfur (S)	0.24 %	0.26 %
Sodium (Na)	937 mg/kg	1039 mg/kg
Aluminum (Al)	5839.38 mg/kg	6480.85 mg/kg
Iron (Fe)	10223.96 mg/kg	11347.08 mg/kg
Manganese (Mn)	422.88 mg/kg	469.34 mg/kg
Copper (Cu)	21.90 mg/kg	24.31 mg/kg
Zinc (Zn)	122.95 mg/kg	136.45 mg/kg

[1] See comments on back of report.

[2] To convert phosphorus as P_2O_5 into elemental phosphorus (P), divide by 2.29. To convert potassium (as K_2O) into elemental potassium (K), divide by 1.20.

INTERPRETATION

pH

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.

Soluble Salts

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.

% Solids, % Moisture

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).

% Organic Matter

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.

Nitrogen : Total, Organic, Ammonium, and Nitrate

Total nitrogen (N) includes all forms of nitrogen: organic N, ammonium N (NH_4-N), and nitrate N (NO_3-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. NO_3-N (an optional test) is generally present in only low concentrations in immature composts, although it may increase as the compost matures. NH_4-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, NH_4-N and NO_3-N, from total N. However, because NO_3-N levels are generally very low, total nitrogen minus NH_4-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 NH_4-N and NO_3-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.

Total Carbon

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.

Carbon: Nitrogen Ratio

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.

Phosphorus, Potassium

Phosphorus (P) and potassium (K) are plant macronutrients. Values reported are for total amounts given in the oxide forms (P_2O_5 and K_2O). 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.

Nitrogen, Phosphorus, Potassium Balance

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.

SECTION 6 – FINISHED COMPOST ANALYSIS

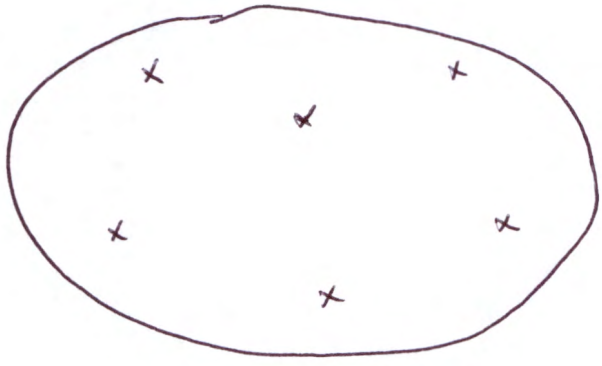
For permitted SSOW composting facilities only. Please attach sampling analyses and laboratory reports as required under Part 360 or your permit. Copies of original laboratory results must be attached. All results, except pH and Total Solids, must be on a dry weight basis. See 361-3.9 Table 6 for pollutant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



6-7 SAMPLE SPOTS FROM FINAL PILE

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.

Due to covid-19 affects and shutdowns the facility operated from March until August without taking on any Food Waste. This is reflected in a lower amount of finished product in comparison to other years.

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 **2021**: 125-150 tons Tons

B. Amount of foods scraps projected to be processed in **2022**: 125-50 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:

_____

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

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

September 2020

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 – 9th Floor
Albany, New York 12233-7253

Phone: 518-402-8706
Fax 518-402-9024
Email address: 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.

Dan Merkley — Signature

2/18/2021 — Date

DENIN MERKLEY — Name (Print)

TECH — Title (Print)

denmerkley@gmail.com — Email (Print)

7195 HWY 80 — Address

COOPERSTOWN N — City

NY 13326 — State and Zip

(315) 269-0943 — Phone Number

ATTACHMENTS: ○NO ◉YES (IF YES, LIST ATTACHMENTS)

- Soil Annalysis
- Temperature Logs
-

THE CLARK FOUNDATION
Mohican Farm
Compost Data Sheet

JANUARY 2020
Month/Year

11/10 12/26 ~~12/11~~

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1								
2	OUT	~~135~~ 148	79	80	←	EMPTY	→	
3								
4								
5								
6	170	132	69	80				
7								
8	150	120	70	75				
9								
10	129	121	70	START				
11								
12								
13	136	106	50	160				
14	132	104	NEW	162				
15								
16	100	95	158	146				
17								
18								
19								
20	50	110	120	120				
21								
22								
23								
24								
25								
26								
27	NEW	115	110	90				
28								
29								
30								
31								

THE CLARK FOUNDATION
Mohican Farm
Compost Data Sheet

FEBRUARY 20[illegible]
Month/Year

1/1 12/26 +/14 1/10

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1	120	90	100	90				
2	110	90	100	90				
3	110	90	100	90				
4	90	90	90	90				
5	90	80	80	80				
6	↓			↓				
7								
8								
9								
10			OUT					
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23			~~NEW~~	NEW				
24	45	60	94 100	142				
25	45	62	82	158				
26	40	50	75	147				
27								
28								
29								
30								
31								

THE CLARK FOUNDATION
Mohican Farm
Compost Data Sheet

MARCH 2020
Month/Year

1/1 12/26 1/10

Date	S-1	S-2	S-3	S-4	N1	N2	N3	N4
1								
2		OUT	OUT					
3	45	OUT	90	101				
4	~~45~~	OUT	70	110				
5	48	OUT	70	92				
6								
7								
8	51	~~OUT~~	90	90				
9								
10								
11								
12								
13								
14								
15								
16	51	NEW	81	90				
17	51	85	81	90				
18								
19								
20								
21								
22	August 17th					4+3		
23			Start of					
24								
25								
26								
27	Aug 24th			2+1				
28								
29								
30								
31								

THE CLARK FOUNDATION
Mohican Farm
Compost Data Sheet

September 2020
Month/Year

October

Date	Aug 21 S-1	Aug 21 S-2	Aug 17th S-3	Aug 17th S-4	S-1 N1	S-2 N2	S-3 N3	S-4 N4
1								
2								
3								
4								
5					124	124	New	New
6								
7								
8					122	118	138	159
9								
10								
11				New				
12			New					
13								
14								
15								
16		New			New	New		
17	New						New	New
18	148	162	158	122				
19								
20								
21					1+2	3+4		
22					New	New	3	
23								
24					16th			
25						3+4		
26						New		
27						7th		
28	126	126	120	104		10th		
29								
30	172	142	110	90				
31	150	130	105	90				