

Cornell Waste Management Institute Food Scrap Composting Project
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The goal of the Cornell Waste Management Institute project (Composting Food Wastes: Education and Technical Assistance for Businesses and Institutions) was to increase the capacity to compost the tremendous amount of food scraps produced in New York State. To this end, several things were accomplished through this project. Educational materials were developed and disseminated in a user-friendly form, a workshop was conducted, and pilot projects initiated. Through this project, institutions and businesses learned to divert and compost food scraps. The educational materials were organized and packaged to address the specific concerns and management practices that are associated with food scrap source separation and composting. The educational program, "[Compost: because a rind is a terrible thing to waste](#)," includes a 60-page manual with case studies and two videos. The videos include a 7-minute version which promotes the idea of diverting food scraps and a 30-minute video on how to source separate and compost featuring footage from 21 different sites. The education package is important for reaching many others beyond this project. The materials were completed for a workshop organized in conjunction with the 1996 annual NYS recycling conference.

Seventy-eight people representing various businesses, agencies and institutions attended the workshop, significantly more than the 50 participants anticipated in the project target. Attendees included processors, regulators, educators/administrators, generators and consultants. Eighteen months after the workshop was completed a phone survey of all those who participated was conducted. Participants were very positive about the workshop. Many came because they wanted to or were mandated to better manage their organic residuals. Some were there to troubleshoot problems in their systems. Participants got a lot out of the technical information and tours but were most enthusiastic about the opportunity to find others with whom to share information. The educational materials were very useful to most people. A summary of the completed survey results is available.



Another desired audience, the retail grocers, proved to be difficult to engage. While we made good in-roads with several grocery chains, we had hoped to work more with their trade association. Contacts were made with the NYS Food Merchants Association, Inc. Indications at the beginning of the project were that the time was right to put on a workshop or to make a presentation at one of their conferences. However, due to personnel changes as well as inexpensive landfilling due to decreasing tip fees, they decided that there was not enough interest in food scrap diversion at this time.

In addition to the educational materials and the workshop, in depth technical assistance was given to twelve organizations. The businesses/institutions represented varied types, but there was heavy concentration of educational institutions because it is easier for them to operate in the current regulatory climate. There was no shortage of interested parties, however it took longer than expected to cut through the red tape in businesses and institutions. Often there are both internal and external politics and financial constraints to work through.

The total tonnage diverted during the project period was 145. The need to work through administrative hurdles at the various facilities and regulatory issues caused the slow start up. At the end of the project, however, projected annual diversion of food scraps at the facilities totaled 745.76 tons. Including the manure and bedding wastes co-composted at Cornell brings the annual diversion total to 4196.76 tons.

There are five projects that received technical assistance and have implemented food scrap composting at the close of the project period: Camp Loyaltown, Cornell University, Hudson Correctional, Keene School, and Mohawk Valley Community College. They are briefly described below; follow the links on the left for more detailed descriptions. During the project period we also worked with Hamilton College, Wegmans Supermarkets in Syracuse and Ithaca, Niagara County Community College, Hudson Valley Correctional Facility (county jail), State University of NY in Oswego, Schenectady County Soil and Water District, and Guptill Farm in southern Onondaga county. These projects are also briefly described below. Some of these contacts resulted in projects that are proceeding. For others there were obstacles not yet surmounted. Several needed to secure additional funding, others were interested in exploring different aspects that bear on production or marketing of compost and have resulted in more elaborate projects that we are continuing to work on. Many additional contacts were made throughout the project period.

*Disclaimer: Descriptions below and to the left are from 1998. Some of these programs may not exist anymore or may have changed. Many other programs have been started from these early ones. Please see [CWMI's Compost Facility Map](#) for other programs around NYS.

Camp Loyaltown, Hunter N.Y.

Tony Amico, compost manager. This is a summer camp for handicapped children. Events occur from May through September. Two hundred people eat 3 meals/day when they are in the full program. The camp composts in haystack type piles that they can access them with their bucket loader. They use wood chips as bulking agent. To date they have composted 15,050 pounds of food scrap. The compost will be used to grow organic vegetables.

Cornell University, Ithaca, N.Y.

Gary Tennant, compost manager. Cornell started composting food scraps December 1997. Cafeteria workers were educated to separate scraps for composting. Farm Services completed a test with scraps collected before winter break to work the bugs out see if the equipment they had was adequate. They found that it would be easier if they retrofit a truck with a lift for collection. Currently, collection is done with a dump truck; animal bedding is collected in the bottom of the truck to absorb excess liquid from

the food scrap. It is transported to farm services where it is loaded into a manure spreader to be mixed and then spread on the side of the pile; the bobcat mixes it into the piles. 160,000 pounds composted to date.

****2009 updated document on the [Cornell Farm Services Composting Facility](#)**

Guptill/Jerose-Proposed, Tully, N.Y.

On-farm composting project. The livestock farm is on Route 80 outside of Tully, NY. The owners approached CWMI in August 1997, and were referred to us by Ed Campbell of Empire State Development and Joe Marron of Wegmans in October 1997 to help them work with DEC to start a compost facility taking in food scrap and yard waste from a local municipality. CWMI worked with them to get funding and assisted them in getting the variance and completing the permit.

Hamilton College, Clinton, N.Y.

In spring of 97 CWMI met with college staff and students to explore food scrap composting. Hamilton College approached Ed Crane, a dairy farmer near the college, who expressed interest in composting Hamilton's food scrap. They spoke to Bob Senior at DEC and he referred them to CWMI to help get them going. CWMI met with Ed Crane December 1997. A variance to proceed with composting at the Crane farm was issued from DEC region 5. Crane composts in windrows and uses a loader to turn. They started composting in April 1998 and have composted 17,500 pounds to date. Addition of cafeterias and other businesses is anticipated if allowed.

Hudson Valley Correctional Facility (county jail), Hudson, N.Y.

Composting 100 pounds food scrap per day in windrows after attending the CWMI composting workshop in October 1996 and a follow up meeting with CWMI at the compost day at the 1997 Annual NYS Recycling Conference compost track.

Keene Valley Central School, Keene Valley, N.Y.

Bunnie Goodwin, coordinator. Food scraps from the elementary through high school cafeteria with a school population of 250 and leaves are being composted in 4 plastic in-vessel units 4 cu. yd. each. Started in January 1996; had problems with plastic drink bags. The amount of food scrap diverted to date is 6080 pounds. They are purchasing a shredder and more bins with some of the funds from the grant. They have access to a mini loader to turn and reload containers. Compost is used on a school garden plot. They are considering building a new unit that will be easier for the bobcat operator to turn by himself, it will be a wooden unit that they can push against for turning purposes. The new system will be constructed in the spring. A nursing home about 1/4 mile away is also starting to compost their food scraps and yard waste following Keene Valley Central School's example. Because of the Keene project, 12 bins were purchased by homes. They hope to make a concerted effort to get more families to buy bins next year.

Mohawk Valley Community College - Rome Branch Campus, Rome, N.Y.

Bob Clemente, coordinator. MVCC is separating 300 pounds a week of food scraps. The source of the scrap is a culinary education program. The compost method is static windrow; the bulking agent-unlimited wood chips from utility company. The date started was September 1996; amount diverted to date is approximately 4500 pounds. Mohawk Valley has currently stopped composting because compost site is being used for a construction storage site. They have doubled the culinary classes, professors and students are very eager to start up again. Beginning in 1999, MVCC will begin evaluating several household-type composters in conjunction with the Oneida-Herkimer Solid Waste Authority. The spring semester used to develop an integrated source reduction, recycling and food scrap composting plan. An environmental science class will be conducting waste audits and data collection while the culinary

classes will be separating out the food scraps. The goal is to have 6' x 6' x 6' static pile containers operating in the fall with diversions of 500-600 lbs/week of organics by the end of 1999.

Niagara County Community College, Lockport, N.Y.

In August 1997 CWMI met with staff of NCCC and a grassroots group that works on college environmental issues. The plan was to put in a pad that fall and look at composting in 1998. The board passed a resolution in September 1998 to proceed with the composting plan. Since they are a county facility, they have access to some county labor and equipment. That availability will determine when the pad gets developed. They have purchased a loader for multiple purposes. The new NCCC administrator is in favor of the project.

Schenectady County Soil and Water District

Jeff Edwards contacted CWMI to explore the possibility of adding food scrap from several businesses/institutions to the Schenectady County leaf and yard waste composting site. Since they would need some funding to carry out a project, they applied for ORMD funds.

Cayuga Nature Center, Tompkins County, Ithaca, N.Y.

John Sullivan of the Cornell Cooperative Extension matched Ithaca's Wegmans supermarket with the Cayuga Nature Center to compost in windrows. The nature center has a working farm where they compost manure. CWMI met with Joe Marron from Wegmans and targeted spring 1998 to start. Empire State Development is supporting the nature center to assess economics of using a bucket loader in a farm setting. They will also have their site set up as a demonstration site to provide an example to other organizations. In July 1998, Elizabeth Thomas began as compost coordinator at CNC and they are composting Wegmans produce scraps. The compost method is windrows; the bulking agents are manure and woodchips. The project receives tipping fees from generators and will use and sell the compost. In addition, a 3-day course will be given in August 1999 on incorporating food scrap composting into existing sites.

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