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Food Waste Composting at a Special Event: Hallsmith Sysco Food Show Case Study, Boston 2008



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Overview

The Northeast Recycling Council, Inc. (NERC) was awarded a US Environmental Protection Agency (EPA) New England Resource Conservation Challenge Grant to conduct food waste composting pilots at special events. NERC worked with events of varying types and sizes to demonstrate different methodologies for designing and implementing food waste diversion programs. For purposes of the project, materials diverted included pre- and post-consumer food, as well as compostable flatware, plates, packaging, and napkins. Assistance with integrating food diversion into existing recycling efforts or implementation of recycling was also provided, along with presentation of zero waste as a viable option.

Key Steps to Food Show Composting

- Commitment of event organizers.
- Cooperation of vendors.
- Sufficient staff or volunteers for end-of-event clean-up.
- Food donation opportunities.

The goal of the project was to assist organizers to implement a sustainable food waste diversion at their event to serve as a model for other events.



The Event

Hallsmith Sysco Food Show Pilot Composting at a Glance	
Location	Seaport World Trade Center, Boston
Organizer	Hallsmith Sysco
Date	April 17, 2008
Estimated attendance	1,300 attendees
Vendors	178 vendors
Food waste & biodegradable service ware composted: Pre- consumer food wastes, biodegradable paper and plastic service ware, soiled paper	More than 2,800 pounds
Materials recycled: Cardboard, steel/tin cans, plastic bottles, aluminum cans, aluminum foil.	Recyclables were collected by Seaport World Trade Center employees; weights were not available.
Compost hauler	Save That Stuff, Cambridge, MA
Compost processor	Brick Ends Farm, Saugus, MA
Waste management	Hallsmith Sysco contracted with Seaport to handle solid waste collection for the event. Small wastebaskets were placed next to all booths. Large waste receptacles were located around the exhibit hall and emptied by Seaport employees periodically throughout the day. Immediately following the close of the event Seaport employees began clean-up of the hall. Vendors typically left items for disposal on their table or on the floor.

Hallsmith Sysco Food Shows provide an opportunity for its food brokers to display and sample food items, service ware, and other food industry products (e.g., paper and plastic service ware and janitorial products). The Boston Food Show event featured 178 vendors, including food brokers, distributors, and manufacturers. Vendors tend to be the same or similar at all Hallsmith Sysco Food Show events.

Attendees of the events include hotel chefs and food service providers, restaurateurs, and others in the food service industries that are customers or potential customers of Sysco and its brokers. This Boston event had approximately 1,300 attendees.

Food Waste Diversion Planning

Background

Hallsmith Sysco contracts with the Food Show host hotel or conference center (“venue”) to handle solid waste for the event. If the hotel recycles cardboard and other materials, Hallsmith Sysco encourages vendors to recycle. Vendors are asked to stack cardboard aside. At the end of the event, vendors are asked to remove trash to a designated location.

In the fall of 2007, the Massachusetts Department of Environmental Protection (MassDEP) approached Hallsmith Sysco (Sysco) about the possibility of diverting food waste to composting at its annual Food Show.¹ Hallsmith Sysco enthusiastically supported the idea. MassDEP initially observed a regional Sysco Food Show event in Rhode Island in mid-March, 2008. MassDEP then initiated a pilot compost collection at the small Cape Cod Food Show in late-March.

As a part of its EPA grant project, NERC agreed to work with MassDEP to conduct a food waste assessment and assist with a pilot food waste diversion project at the Hallsmith Sysco Food Show in Boston on April 17, 2008. Additionally, the New Hampshire Department of Environmental Services was approached about conducting a pilot food waste diversion project at the Hallsmith Sysco Food Show to be held in Manchester, New Hampshire on April 2, 2008.

Planning and Logistics

Based on the experience of the MassDEP composting effort at the Cape Cod Food Show and conversations with Hallsmith Sysco staff, a basic plan for the food show event pilot was developed. A quantification of the tonnages collected for composting from the Cape Cod event allowed for an estimation of the number of collection carts and compostable bags that would be needed at the larger Manchester and Boston events. An unanticipated waste collection need was for liquid wastes, such as leftover soups and beverages. Such containers were provided at the Boston show.

A timeline for collecting the organics was made, with particular attention to the removal of full compostable bags (from each vendor booth), as well as leftover samples and display foods generated at the close of the Food Show. Lessons learned from the Cape Cod and New Hampshire events also pointed to the need to assist vendors in removing display meats, fish, cheese, and similar items from packaging so that these items could be collected for composting.

¹ This year Hallsmith Sysco decided to hold several regional events throughout New England, instead of one large event, typically held in Boston. Five regional events are held in March and April in Rhode Island, Massachusetts, and New Hampshire.

Pilot Food Waste Diversion Project Implementation

Vendor Education

The MassDEP staff spent a significant amount of time at the small Cape Cod pilot event talking with the food vendors at the event about the opportunity to compost, what was acceptable, and how it would be collected. MassDEP also developed a handout explaining the food waste diversion project to vendors. Similar vendor education was provided by NERC and NH DEC staff at the New Hampshire Food Show event. The one-on-one education provided at both the Cape Cod and New Hampshire events was useful for the Boston Food Show pilot, as many vendors attending the event were then familiar with what was acceptable for composting and how the collection would work.

At the Boston Food Show, MassDEP and NERC staff visited each vendor prior to the start of the event, provided a list of acceptable food and paper items for composting and discussed the pilot project individually with all vendors. See Attachment A for the vendor education handout. Vendors were also given compostable bags for collection of prep scraps and food display items. Vendors were visited periodically during the event to answer any additional questions, to remove full collection bags, and assist as necessary.

Containers and supplies

Due to space concerns and issues associated with booth appearance, it was determined to use compostable bags for the collection of the food waste. Vendors were provided compostable bags donated by Heritage Bags (a Food Show vendor) in which to place preparation scraps, leftover samples, de-packaged display foods, and soiled paper. At least one bag was distributed to each booth before the event began. More bags were distributed throughout the day per vendor requests.

Due to limited vendor booth space, the bags proved to be a workable collection tool. They typically do not burst, as long as vendors were provided with sufficient quantities so that the bags did not become overfilled or too heavy to lift. Small containers with lids (5-gallon buckets) were distributed for collection of leftover soups, beans, and similar products. Substantial volumes of liquid wastes are generated throughout the day at Food Show events; separate collection of these liquids in buckets proved essential so that collection bags did not get too heavy.

Lessons learned at the Cape Cod event indicated that "Slim Jim" type containers (tall and narrow) did not work well. Based on the experiences at Cape Cod and Manchester Food Shows, MassDEP secured small, "desk-side" containers for use by some of the vendors at the Boston Food Show. These containers proved useful for collection of coffee grounds and prep wastes.

Materials Generated

Compostables generated at the event included a wide range of preparation food wastes, including vegetables; sampling leftovers, principally heated foods that went stale and were tossed out during the day, plus any remaining sample items left at the end of the day; and display items. A large quantity of soups and other prepared foods were leftover at the end of the day. Display items ranged from small packages of cheese and fish to fifteen pound or larger display packages of meats. Display packages were primarily wrapped in plastic, thus requiring that they be opened in order to be collected for composting.



On-site Collection

At the end of the event, staff from the Massachusetts Department of Environmental Protection, NERC, and US EPA New England circulated through the event with carts to collect the bags of food scraps and other items for composting. Each staff person circulated down a row of vendors in order to cover all the vendor tables in a timely manner prior to the vendors completely breaking down their booths. An empty cart was also left in the middle of each row for vendors to place loose and bagged scraps. Carts were monitored to reduce the potential for contamination and to ensure that they did not get too heavy to move. The carts were lined with heavy plastic.

Ten, 65-gallon carts were necessary for the Food Show pilot. The carts were lined with heavy plastic. Gloves were also essential for each person collecting food scraps. A knife or sharp scissors was required to open packaged goods.

Save That Stuff, a waste management company that provides recycling services for New England businesses, picked-up the full carts from inside the Trade Center the morning following the event. The collected materials were transported the collected compostables to Brick Ends Farm in Saugus for composting.

Food Waste Management Plan

In conjunction with the food waste diversion pilot NERC conducted a waste survey of each food vendor and interviewed the primary event organizer. Based on this information, NERC developed a Food Waste Management Plan (FWMP) that detailed options for food waste diversion at food show events. See Attachment B for the FWMP.

The waste survey consisted of visual observation and records of the types of food served, service ware used, and wastes generated. Additionally, NERC staff spoke with food vendors and Sysco staff about the pilot food waste diversion, answered questions, and also discussed potential substitute options for plastic and other non-compostable or non-recyclable service ware used. General observations about needs, logistics, layout, etc. in order to design and implement a FWMP were also made.

Food Waste Diversion Results & Environmental Benefits

More than 2,800 pounds of food and paper wastes were collected for composting. No food bank was present to collect useable food and other items, resulting in a higher composting rate than the New Hampshire event. This is estimated to be at least 90% of the food waste generated during the day of the event.

Recyclables

A substantial volume of cardboard, boxboard, and beverage containers were generated at the event. All vendors generated corrugated cardboard boxes; most of which was produced during set-up either the day before the event or the morning of the event. Although cardboard continues to be generated throughout the day. Exhibitors were asked to break down cardboard and set it aside for pickup by Seaport staff. All vendors disposed of boxboard and mixed paper, as well. At least thirteen vendors displayed pastries and other baked goods, producing the majority of the boxboard.

Beverage containers, including aluminum cans, PETE (#1), and HDPE (#2) plastic bottles, were generated by only a few vendors. However, volumes were significant. In one instance, a vendor filled a 64-gallon trash container with 16-ounce HDPE plastic bottles (unflattened) prior to the show opening. Bottled water in small PETE containers was provided to all attendees, generating significant volumes of post-consumer recyclable plastic. Aluminum trays were used by a substantial number of vendors (at least eighteen) to both cook in and display food. Some of these trays would need to be cleaned prior to recycling. Other types of recyclables were also generated, including #10 steel cans, plastic film, and other types of plastic bottles and containers.

Seaport World Trade Center provided recycling services for the collection of cardboard and beverage and food containers. Large recycling boxes were stationed at the end of all aisles in the exhibit hall. Additionally, Hallsmith Sysco had purchased two sets of recycling and composting containers that were stationed around the exhibit hall. Seaport staff checked these containers and emptied them as necessary.

Observations

Initiative and Dedication of Hallsmith Sysco

To ensure success of any food diversion effort takes the commitment and dedication of the event organizer. Hallsmith Sysco was very cooperative and enthusiastic during the planning and implementation of the food waste diversion pilot. "Green" product displays by Sysco were a valuable component of the show.

Waste Reduction Practices Already Undertaken by Vendors

Some vendors already followed waste reduction practices that could be adopted by other vendors.

Waste reduction practices observed:

- Many vendors had reusable glass or metal display dishes.
- Some vendors wash and reuse plastic serving trays.
- Several vendors said that they could donate unopened cheeses (all on ice) to the Food Bank, but this response was not universal.
- Display mushrooms were presented in packaging (cardboard boxes) and used in cooking during the event; remaining display product could be donated to a food rescue organization at the end of the event.
- Many vendors reused unopened display packages (on ice) of bread, meat, and other packaged items at future shows for display.
- Two vendors used specially designed, realistic looking rubber display food.
- Several vendors used bulk vegetables transported to the show in reusable trays.
- Some vendors reused condiment containers for reuse at future shows
- One vendor displayed empty milk and other product cartons, instead of actual product.
- Several vendors reused aluminum baking pans.



Vendor support for the food waste diversion pilot

Vendor participation and support for the food waste collection was nearly universal. Vendors were appreciative of the opportunity to compost their food wastes. Most vendors cooperated fully in filling the bags with food discards during the event. Minimal contamination was observed during the collection of the compost materials. Several vendors had already begun switching to compostable plastic service ware and utensils. Many used uncoated paper for sampling. Several vendors also used napkins made with post consumer paper.

The rapid pace of vendor booth break down at the end of the event presents some issues, particularly in terms of removing display food from packages. Many vendors did not remove packaging from display items, either leaving items out on their tables after breaking down their booths, or placing wrapped items into compost collection bags or carts. This will have to be addressed at future events.

Recommendations

Problems, Issues, Lessons Learned

- ▶ It was not possible to collect food waste from the day before the event during the pilot. Several vendors mentioned that they generate the bulk of their waste the afternoon before the actual event during display food preparation. Distributing collection bags the day before and asking vendors to place bags in a designated cart would be relatively easy to implement, with little additional staff requirements.
- ▶ Considerable reuse opportunity exists at the Food Shows, including food items, particularly produce, unused utensils, and paper products (such as napkins).

- Some food banks or food rescue organizations have standing relationships with hotels and conference centers, however it is important that Hallsmith Sysco include in its contract with the Food Show venue host a provision that the venue contact a food bank or other food rescue organization. This will benefit Hallsmith Sysco and the venue host by reducing waste and provide valuable food and other items to the local food bank. It also serves as a positive image for Hallsmith Sysco and the venue host.
- ▶ Packaged display foods are a substantial volume of waste that is generated at the end of the event, For example, one vendor had fifteen packages of salmon filets, another had ten pouches of fish to throw out, and another had seven, 5-pound packages, plus a number of smaller packages of meat to throw out. Meat and fish could not be given to the Food Bank.
 - Some vendors reused meat packages for other food shows. This would be the best recommendation to reduce waste.
 - If vendors are not willing to reuse meat and fish packages, vendors need to be required to remove the packaging prior to placing the food items in bags for composting. Vendors may be resistant to doing this due to the time necessary. Perhaps assistance by Sysco or venue employees can be offered.
- ▶ Some vendors said that they would donate unopened cheeses (all on ice) to the Food Bank. However, other vendors refused to donate cheese to the Food Bank due to health concerns.
 - A clear “food show” policy on this issue would benefit both the food show and the Food Bank. Unless health regulations specifically prohibit the donation of unopened cheese, a policy would encourage more vendors to donate.
- ▶ Teas and juices come in small beverage containers. Some vendors poured these into pitchers and tossed containers into the trash.
 - Before the show opened one vendor had filled a 64-gallon trash barrel with 16-ounce plastic (HDPE) bottles.
 - If recycling occurs at the food show, it is important to ensure that beverage containers generated pre-show and during the show be collected. Perhaps recycling stations can be placed near the vendors with these products.
 - Perhaps bulk product can be used for sampling and individual serving packaging used just for display.
- ▶ Many vendors used plastic bowls for display and did not wash the bowls for reuse at other shows. At least one vendor did wash the display bowls for use at future shows. This would be a positive practice to reinforce.
- ▶ Some vendors use black plastic plates that look and feel like paper (Dixie brand). These items would be confusing in compost collection and may contaminate the material.
- ▶ Water bottles (for attendees) were packaged on cardboard trays wrapped in plastic. The boxes were placed in trash bins with plastic wrap still on them. If recycling is integrated into the event it would be important that staff placing the water bottles in the display barrels also remove the plastic wrap and place the boxes in a location for recycling.

- ▶ Single serving sauces, even if not opened, are considered “one-way” and tossed at the end of the show (typically recyclable plastic). Perhaps vendors could be encouraged to designate the containers for “show” purposes only and bring extras if show attendees request them.

Conclusion

Food shows, by the very nature of the event and high number of food vendors, generate a significant amount of waste food waste and other materials suitable for diversion to composting. Observations made at the Food Show during the pilot food waste diversion indicated that more than 90 percent of the waste could be diverted through donation, composting, and recycling with only minor changes in the service ware used by vendors. Much of the sampling service ware already used at the event was compostable, providing a model that could be used by all vendors. This will allow for both pre-consumer and post-consumer collection of materials for composting.

Promoting the Sysco and its Food Shows as “being green” by implementing food waste diversion can help to move the event toward greater environmental sustainability and present a model for similar events.

NERC would like to extend its appreciation to the staff at the Massachusetts Department of Environmental Protection, Hallsmith Sysco, and US EPA New England for their invaluable assistance and dedication in making this project a success.

Attachment A: Vendor Education

Hallsmith Sysco is Going GREEN!

Hallsmith Sysco is “Going Green” and they need your help! Hallsmith Sysco, the Massachusetts Department of Environmental Protection (MassDEP), and the Northeast Recycling Council (NERC), with partial funding from the U.S. Environmental Protection Agency (EPA), are providing on-site assistance in the COLLECTION OF ALL FOOD WASTE generated during the show! IMAGINE food not being thrown away but composted!

It’s Easy to Be Green!

1. Please use the special GREEN biodegradable bags and designated containers for FOOD WASTE and PAPER ONLY, including:

- PREPARATION SCRAPS
- SAMPLES
- DE-PACKAGED DISPLAY FOODS
- LEFTOVERS
- PAPER TOWELS, NAPKINS AND PAPER PLATES



No - cutlery, plastics, single use containers, toothpicks, aluminum trays, glass, or other non-biodegradable items

2. Please keep the green biodegradable bag behind your booth so as not to be used by the public. Collection of food waste, cardboard and general trash will occur throughout the event. Additional bags will be provided upon request.
3. Staff will be on hand to assist with the collection and provide additional bags for food waste at the end of the day. ***If you can eat it, we’ll take it!!***

Your participation is greatly appreciated!

Attachment B: Food Waste Management Plan
Hallsmith Sysco Food Shows

OVERVIEW

This Food Waste Management Plan (FWMP) reflects the results of a waste assessment and pilot food waste diversion project conducted at two Hallsmith Sysco Food Show events (Food Shows). The first event was held on April 2, 2008 at the Radisson Hotel in Manchester, New Hampshire; the second occurred on April 17, 2008 at the Seaport World Trade Center in Boston. The waste assessment and pilot in Manchester were conducted by staff from the Northeast Recycling Council (NERC) and New Hampshire Department of Environmental Services (NH DES). The Boston event was staffed by representatives from NERC, the Massachusetts Department of Environmental Protection (MassDEP), and the US Environmental Protection Agency (EPA) New England.

The FWMP is intended to provide guidance to Hallsmith Sysco and other food show organizers in the implementation of food waste diversion, reuse, and recycling at food show events. The project was conducted as a part an EPA New England Resource Conservation Challenge Grant awarded to NERC to conduct food waste composting pilots at special waste events.

SECTION 1. EVENT SYNOPSIS	
Name of Event/Organizer	Hallsmith Sysco Regional Food Shows
Event Description	The food shows provide an opportunity for food brokers to display and sample food items, service ware, and other food industry products.
Location of Events	The New Hampshire event was held at The Radisson in Manchester. The Boston event was held at the Seaport World Trade Center.
Duration/Dates of Events	Food shows are typically single day events that run from 10:00 am until 5:00 pm. Some vendors begin set-up the afternoon before the event; the remainder begin set-up early in the morning the day of the event.
Venue Description	Venues for the food shows are typically at hotel exhibit halls or conference centers. Each venue is somewhat different in terms of size, layout, space available for storage of collection carts, loading dock space, etc. The Radisson Hotel Exhibit Hall had some storage area near the loading dock and a very small loading dock. The Seaport World Trade Center Exhibit Hall provided more storage opportunity nearer to the Exhibit area and a substantial dock area.
Attendance	Approximately 1,500 people attended the New Hampshire event and around 1,300 people attended the Boston event. Food Show patrons include hotel chefs and food service providers, restaurateurs, and others in the food service industries that are customers or potential customers of Sysco and its brokers.

Number of Vendors	The New Hampshire Food Show featured 160 vendors, including food brokers, distributors, and manufacturers. The Boston Food Show featured 178 booths. Vendors typically show at multiple Hallsmith Sysco Food Show events, although vendor staffing may change. The majority of vendors are food brokers.
Event Activities	Patrons sample products, discuss products on display, and place orders for show specials and other broker-offered products.
Existing Solid Waste Facilities, Services, Practices & Costs	<p>Hallsmith Sysco contracts with the Food Show host venue to handle solid waste for the events (as part of its overall exhibition package). If the venue offers recycling, Hallsmith Sysco encourages vendors to recycle. Vendors are asked to stack cardboard aside.</p> <p>Typically vendors receive a small waste basket to place in front of their booths for attendee sampling wastes (cups, plates, etc.). Larger waste baskets are placed around the event by the venue services for use by vendors and patrons. These are emptied by venue employees.</p> <p>At the end of the event, vendors are asked to remove trash to a designated location. In practice, however, only some vendors remove their trash at the end of the event. A substantial amount of various types of wastes is left at vendor tables. Venue employees begin clean-up of the exhibit area immediately following the end of the food show.</p> <p>Until the pilot food waste diversion project was done at the Cape Cod Food Show, there had been no organized food diversion or composting effort at the food shows. For the pilot food diversion project in New Hampshire, Hallsmith Sysco purchased six recycling and composting stations for use at its food shows. Hallsmith Sysco staff set-up these containers and asked the hotel staff to empty them at the end of the food show events.</p> <p>The Radisson Hotel had no recycling program in place. The Seaport World Trade Center provided recycling of cardboard and beverage containers; large recycling boxes were stationed around the complex for collection of beverage containers.</p>
Other Relevant Information	Hallsmith Sysco is the largest food distributor in New England. Previously the company hosted one large annual food show event in New England. In 2008 the company switched to offering regional food shows in multiple states.

SECTION 2. WASTE COMPOSITION, GENERATION, AND QUANTITIES

A vendor food waste assessment chart was created to keep track of wastes at the Food Shows. As a part of the waste assessment conducted at the food shows in Manchester and Boston, vendors and Sysco staff were asked questions about specific waste items; reuse, recycling, and disposal practices; and potential options for reuse and/or substitution to recyclable or compostable products. The chart below summarizes the types of wastes generated.

Area	Reusable	Recyclable	Compostable	Could be converted	Trash
Vendor Prep Waste	<ul style="list-style-type: none"> ▪ Aluminum Trays 	<ul style="list-style-type: none"> ▪ Cardboard ▪ Paperboard ▪ Plastic bottles ▪ Plastic film/bags ▪ Aluminum Trays ▪ Steel (Tin) cans 	<ul style="list-style-type: none"> ▪ Vegetable scraps/fruit rinds ▪ Coffee grounds ▪ Cheese rinds ▪ Paper towels, wax paper, other paper 	<ul style="list-style-type: none"> ▪ Non-recyclable plastic trays 	<ul style="list-style-type: none"> ▪ Dirty plastic ▪ Non-recyclable plastics ▪ Coated paper
Sampling (Attendee discards)		<ul style="list-style-type: none"> ▪ Plastic bottles 	<ul style="list-style-type: none"> ▪ Cheese ▪ Meat/Chicken/Fish ▪ Pastries/Baked goods-- cookies/tarts/cakes ▪ Breads ▪ Juices/teas/other drinks ▪ Spreads/sauces/dressings ▪ Broth/Soups ▪ Pasta ▪ Fruit/vegetables ▪ Chips/Crackers ▪ Nuts/snacks ▪ Pudding/gelato/ice cream ▪ Beans ▪ Compostable plastic cutlery & cups ▪ Paper plates & cups ▪ Paper napkins 	<ul style="list-style-type: none"> ▪ Plastic utensils ▪ Plastic cups ▪ Plastic plates ▪ Plastic tooth picks 	
Display	<ul style="list-style-type: none"> ▪ Aluminum trays ▪ Plastic trays ▪ Glass trays 	<ul style="list-style-type: none"> ▪ Aluminum Trays 	<ul style="list-style-type: none"> ▪ Paper doilies ▪ Packaged food displays: bread, cheese, meats, fish, vegetables, other 	<ul style="list-style-type: none"> ▪ Plastic serving trays 	<ul style="list-style-type: none"> ▪ Non-recyclable packaging (Plastic wrap, chip wrappers, etc.)
Other		<ul style="list-style-type: none"> ▪ Grease 	<ul style="list-style-type: none"> ▪ Wooden stirrers ▪ Wooden toothpicks ▪ Napkins 	<ul style="list-style-type: none"> ▪ Plastic stirrers ▪ Straws 	

Quantities of waste based on the Pilot Collections: Observations of the two Food Shows indicated that more than 90 percent of both pre-consumer and post-consumer waste generated could be reusable, recyclable, or compostable.

Reuse: At the New Hampshire Food Show, volunteers from the New Hampshire Food Bank collected more than 1,650 pounds of food and other items for redistribution to needy families.

Food waste: At the food diversion pilots, preparation scraps, leftover samples, de-packaged display foods, and paper towels, napkins, and paper plates were collected for composting. The pilots targeted only the vendor waste; no attendee (post consumer) wastes were collected. More than 1,750 pounds of food and paper wastes were collected for composting at the New Hampshire pilot. At the Boston Food Show more than 2,800 pounds of food and paper wastes were collected for composting (no food donation occurred).

Recyclables: No recycling occurred at the New Hampshire Food Show. The Boston Food Show did have recycling of cardboard and beverage containers; however, tonnages are not available.

Trash: No tonnage information is available on the amount of trash generated at the Food Shows. All waste is handled by the hotel or exhibit hall venue as a part of the general event contract. It would be difficult to obtain weights for trash as the event wastes are disposed with the general venue wastes.

Waste generation specifics: Many vendors generate food preparation wastes the afternoon of the day before the Food Show, as well as in the morning prior to the start of the event. Vendor preparation wastes include a significant volume of packaging, consisting of various types of plastics, paper board, cardboard, as well as aluminum trays used for heating samples and serving. A considerable amount of recyclable materials, particularly cardboard and plastic beverage bottles are generated in the morning of the event as vendors prepare for the show. Preparation wastes also include vegetables, oils, and other items used in cooking foods. These wastes are also consistently generated throughout the day.

Vendors display a range of products, much of which is disposed of at the end of the day. Display items included packaged meats, fish, and cheeses; sauces; milk; frozen entrees and appetizers; and other products. Unpackaged and prepared foods are also placed on display, including a wide assortment of breads, pastries, deli items, and fresh produce.

Other wastes generated throughout the day include food samples that become too stale to serve and attendee generated waste. During the event, food samples for patrons are presented in a variety of ways: with toothpicks or on plates, as finger foods, or with disposable utensils. Napkins are provided at all booths. Beverage samples are typically provided in small sample cups, either plastic or paper. Soups are served in

plastic or paper bowls or cups. Plastic water bottles (PET) are provided to attendees, along with coffee and other refreshments.

Much of the food waste at the Food Shows was generated at the end of the event. Vendors discard all leftover samples—from soups and sauces to fried finger foods. Most vendors also discard their display foods, including wrapped fish, meat, and cheeses and unpackaged produce, pastries, breads, and other products. Vendors also leave behind unused napkins, service ware, serving containers, signage, and other items that they do not want to carry back with them.

SECTION 3. FOOD DIVERSION, RECYCLABLES, & WASTE COLLECTION SYSTEM

Reuse

Recommendations for Reuse at Food Shows

- 1) Use of bulk dispensers for coffee creamers used at refreshment tables for event patrons would produce less waste.
- 2) Vendors typically used small rigid, non-recyclable packaging for salads, greens, and other display vegetables. Switching to reusable containers would eliminate this waste from food shows; or switching to plastic bags would reduce the bulkiness of waste generated.
- 3) Polypropylene food trays are used for other vegetables. Perhaps bags can be used. If product damage is a concern, food could be placed in plastic bags and contained in reusable tubs.
- 4) Vendors tended to use multiple packages for display of the same product. These items are typically discarded at the end of the show. Perhaps a food show policy could be adopted that promotes waste reduction by encouraging creative displays using fewer products in packages, reuse of display only products for future food shows, or use of molded plastic display items.
 - a. Some vendors reused meat packages and breads for other food shows. This would be the best recommendation to reduce waste.
 - b. One vendor had purchased molded plastic display items that resembled his products. These items were durable, realistic, and very easy to pack up and reuse for future events.
 - c. Another vendor displayed empty product cartons that were reused at each show.
 - d. If vendors are not willing to reuse meat and fish packages, vendors need to be required or encouraged to remove the packaging prior to discarding the food items for composting. Vendors may be resistant to doing this due to the time required. Perhaps assistance can be offered by Sysco or venue employees. (See additional discussion under composting.)
- 5) Some vendors said that they would donate unopened cheeses (all on ice) to the food bank. However, other vendors refused to donate cheese to the food bank due to health concerns.
 - a. A clear “Food Show” policy on this issue would benefit both the event and the food bank. Unless health regulations specifically prohibit the donation of

- unopened, packaged (refrigerated) cheese, a policy would encourage more vendors to donate.
- 6) Teas and juices used in sampling often were packaged in individual serving beverage containers. Most vendors poured these into pitchers and discarded the beverage containers into the trash.
 - a. At least one vendor displayed individual serving containers of product, but used bulk product dispensers for sampling. Perhaps this can be promoted as a reuse option.
 - b. If recycling occurs at the food show, it is important to ensure that beverage containers generated pre-show and during the show be collected. Placement of recycling stations near the vendors with these products would allow for efficient recycling.
 - 7) Many vendors used durable plastic bowls for displaying and did not wash the bowls for reuse at other shows, instead discarding the bowls as trash. At least one vendor did wash the display bowls for use at future shows. This would be a positive practice to reinforce.

Arrangements with Local Food Banks

- 1) Considerable reuse opportunity exists at food shows, including food items, particularly produce, unused packaged cheese, as well as unused service ware and paper products (such as napkins).
- 2) Some food banks or food rescue organizations have standing relationships with hotels and conference centers, however it is important that Hallsmith Sysco include in its contract with the venue host a provision that the venue contact a food rescue organization. This will benefit Hallsmith Sysco and the venue host by reducing waste and provide valuable food and other items to the local food bank. It also serves as a positive image for Hallsmith Sysco and the venue host.

Food Reuse Logistics

- 1) Staff or volunteers with the food bank or food rescue organization should arrive prior to the food show opening to distribute to all vendors a brief letter explaining which items can be donated and an introduction to the organization.
- 2) A tag system might be developed by Hallsmith Sysco that provides vendors with a color coded tag to place on items to be donated to the Food Bank. The donation information and tags could be included in the vendor packets.
- 3) Food bank volunteers should return to the food show approximately 30 minutes prior to the end of the event to begin circulating through the booths to collect reusable items or remind vendors to leave items on their tables.

Compost Collection

At the food waste diversion pilots, vendor support and cooperation for composting was largely universal. While there were some contamination issues, largely from packaged display items, the pilot events proved that composting at the vendor level could be successful. The key to success for diversion will be integration of the collection into the normal in-house solid waste collection system.

Suggested targeted materials for compost collection

- 1) Preparation scraps (collected the afternoon before the food show event, the morning of the event and during the event).
- 2) Stale or leftover sample food.
 - a. Food items include produce, meats, cheese, cooked foods, various liquid items (sauces, gravies, and soups), and small amounts of grease.
- 3) Display food at end of the event.
 - a. First priority for display food would be to recommend vendors reuse displays for future shows.
 - b. If allowed by health regulations, the second priority would be to donate usable, packaged display food to the local food bank or food rescue organization.
 - c. Collection for composting.
- 4) Paper products, if allowed by contracted compost operation. This would include soiled paperboard and other paper packaging, paper plates, portion cups, hot cups, toothpicks, and other service ware.
- 5) Compostable plastic utensils and service ware, if allowed by contracted compost operation.
- 6) Compostable collection bags.

Compost collection

- 1) Contact local or regional solid waste agencies to determine availability of compost operations in the area. If no assistance is available, consult with state solid waste agencies.
- 2) Consult with the compost operation to see if they provide hauling services or if they can recommend haulers that would service the food show venue. Alternatively, negotiate with the venue host to assist in locating a hauler to provide collection services.
- 3) Negotiate collection costs. The service provider will want to know the estimated food and paper wastes that will be generated for composting.
 - a. A report on the tonnage collected from the food show should be required from the hauler or compost processor.
- 4) Determine acceptable materials. Not all compost operations can accept meat, sauces (high in fat), paper, or compostable plastic products.
- 5) Determine the number of carts and small containers with lids required for the collection and if the hauler can provide these. (See below for information on the numbers and types of containers required at the pilot collections.)
 - a. These will need to be dropped off and secured at the venue the day before the event is to start, allowing for collection of preparation wastes from some vendors pre-event.
 - b. If the hauler does not supply collection carts, discuss with the host venue the possibility of using their janitorial carts on wheels, lined with compostable bags.
 - c. Work with local solid waste agencies to provide smaller bins for use at booths, if possible.
 - d. Prepare to provide compostable collection bags to all vendors.

- 6) Require the hauler to collect all bags, carts, and small containers approximately 1-2 hours following the end of the event or the next day if allowed by the venue host.
- 7) Some haulers/processors may be willing to assist with the collection of compost materials at the end of the event.

Number, Type & Capacity of Compost Collection Bins

- 1) Compostable bags or compost collection carts should be provided to vendors that generate food preparation wastes the afternoon prior to the event and in the morning of the event. This task could be accomplished by Sysco or venue employees.
- 2) Compostable bags present the easiest and most cost effective means of collection from vendor booths. Most vendors have space limitations and concerns associated with booth appearance. Vendors can easily use the bags to place preparation scraps, leftover samples, de-packaged display foods, and paper towels, napkins, and paper plates throughout the day. Bags can be stored out of the way under booth tables. Sysco or venue employees could distribute bags.
 - a. Provide two bags to each booth before the event begins. Perhaps these can be included in vendor packets.
 - b. Visit vendors at least once during the day to see if additional bags are needed.
 - c. One hour prior to the end of the event provide all vendors with 1-2 additional bags for after the event clean-up.
- 3) Some vendors may be willing to have a small collection bin or bucket behind their table, if available. Vendors with coffee grounds and ongoing preparation wastes may find these useful.
- 4) Small containers with lids (2.5-5 gallon buckets) work well for collection of leftover soups, beans, and other liquid products.
- 5) Ten-fifteen, 65-gallon carts on wheels are necessary for collection of compost materials at the end of the food show. Check with the hauler to see if containers should be lined with large compostable or plastic bags.

Collection containers

- Ten or more small containers for coffee grounds, etc.
- Ten or more small containers or buckets with lids for collection of liquids.
- Ten-to-fifteen, 60-90 gallon carts on wheels, for a show with 160-180 vendors.

The hauler typically will provide carts for collection. The hauler may also have smaller containers for use. If the hauler does not provide collection carts arrangements must be made with the host venue for use of their trash collection or utility carts.

Compostable bags: At least two bags per booth during the day, with one or two extra bags per booth for the end of the event clean-up.

Compost Collection Logistics

Options for in-house collection

- 1) Negotiate a clause in the host venue solid waste contract requiring hotel/convention center staff to be assigned to food waste/compost collection.
- 2) Hire temporary workers to collect the food wastes/compost.
- 3) Hire a nonprofit/training organization to collect the food waste/compost.
- 4) Set-up a combination system with Hallsmith Sysco employees distributing bags before and during the event and collecting full bags as necessary. Work with venue staff, temporary workers, a nonprofit, or the contracted compost hauler to provide collection at the end of the event.
- 5) A brief training of the collection staff will be required to review acceptable materials, interfacing with vendors, after the event cleanup logistics, etc. Language obstacles may be encountered if working with hotel staff, so having a bilingual host venue supervisor on-hand for the initial training should be considered.

Hotel contract negotiation options

- 1) In order to make composting cost-effective it must be integrated into the solid waste contract normally negotiated by Hallsmith Sysco with its venue host for its Food Shows.
- 2) If the hotel/conference center staff is to collect the compost materials the day before the event and during the event, this cost should be similar to that of waste collection during the event. *There is no additional waste to be collected—it is simply to be collected differently.*
 - a. Collection requirements during the day of the event are minimal, primarily cardboard and beverage containers for recycling.
- 3) The end-of-the event compost collection will require some additional staff time to collect the separated compost and waste; however, again there is the same amount of waste, just in different forms. Since much of the compost is bagged it will be easier to collect.
- 4) The venue host will realize a substantial reduction in solid waste disposal fees since much of the waste will be diverted through composting and recycling.
- 5) If the hotel staff is not doing the collection, Hallsmith Sysco will need to ensure that bringing in other workers to handle the in-house collection does not violate hotel regulations or union contracts.
- 6) An estimate of the amount of trash generated at the events would be valuable in getting a handle on the success of recycling and composting efforts.
- 7) A dock must be available for the collection vehicle and sufficient space for collection carts until these can be emptied or hauled away.

Collection Logistics

- 1) On the afternoon prior to the start of the event, compostable bags should be distributed to vendors generating preparation food wastes. A cart can be placed in a central location for vendors to leave the full compostable bags, or the bags can be collected in the morning.
- 2) At least two hours prior to the start of the show, compostable bags should be distributed to all vendors with the “acceptable/non-acceptable” list of compostable materials.
- 3) Approximately one hour prior to the end of the event, distribute additional compostable bags to vendors. Remind vendors what is acceptable and to remove display products from packaging prior to placement in the bags. Distribute small containers for liquid wastes, if available. Inform vendors that carts will be placed in each row for discarding full bags and loose food wastes (and paper wastes, if acceptable).
- 4) At fifteen minutes prior to the end of the event line up collection carts at the end of each row.
- 5) Immediately at the end of the event strategically place carts in the middle of rows or nearest the heaviest food waste generators in each row. Circulate additional carts around the booths for collection.
- 6) Be prepared to provide assistance to vendors in removing compostable food display items from plastic packaging.
- 7) At least one staff person with a cart per row of vendor tables is necessary to completely cover all the vendor booths in a timely manner prior to the vendors completing their booth break down. One cart can be left in the middle of the row, while a staff person circulates collecting bags or containers of compost for consolidation into the cart. Vendors can also place loose and bagged leftovers in the carts.
- 8) Monitor the carts to ensure that they do not get too heavy to move.
- 9) A vehicle with a lift arm or apparatus to tilt the cart contents into the dump bed of the collection vehicle or Tommy-lift gate to wheel the carts onto a truck is essential.
- 10) Gloves should be used by each person collecting food scraps. A knife or sharp scissors is also required to open packaged goods.

Sample Language for Venue Host Solid Waste Contract

- If the facility does not currently have a food donation program in place, the facility agrees to work with Hallsmith Sysco, at no cost to the facility or to Hallsmith Sysco, to provide a food donation program. The facility will be responsible for contacting the local Food Bank or other entity to arrange for useable food and other items to be collected at the end of the Food Show.
- If the facility does not currently have a recycling/reuse program in place, the facility agrees to work with Hallsmith Sysco, at no cost to the facility, to arrange for the recycling of cardboard (and potentially beverage containers).
- If the facility does not currently have a food composting program in place, the facility agrees to work with Hallsmith Sysco, at no cost to the facility, to arrange for composting of food wastes and other compostable items.

Expansion of food waste diversion to attendee (post-consumer) generated wastes

For successful diversion of attendee generated wastes, all service ware used for sampling of vendor products must be compostable. Vendors would need to use only paper or compostable plastic utensils, plates, portion cups, and other sampling products. Given the significant use of paper plates and paper portion cups already utilized by vendors for sampling, this appears to be a realistic goal.

Recycling

Inclusion of Recycling at the Food Show

- 1) Due to the large amounts of cardboard, plastic bottles, and other recyclables generated at food show events it is important that Hallsmith Sysco work with the venue host to provide recycling services.
- 2) Ensure that vendors are also aware of the recycling containers. Vendors that generate a significant amount of plastic beverage containers in the early morning should have a recycling container placed next to their booth at least during the preparation period. Vendors need to be informed where to break down cardboard for recycling.
- 3) If the venue host does not provide recycling services Hallsmith Sysco can insert into its contract language to require that the hotel/conference center assist in establishing recycling for the event.
- 4) If recycling services are offered it is important that Hallsmith Sysco promote this opportunity to vendors and provide information to the vendors on what is expected of them.

Waste Collection

- 1) If reuse, composting, and recycling are fully implemented at the Food Show it is important that Hallsmith Sysco effectively negotiate the solid waste clause of the contract with the venue host to significantly reduce the solid waste disposal charges.

SECTION 4. STAFFING NEEDS

Estimated Staffing Requirements at the Food Show Events

- 1) One staff person the afternoon before the event to collect preparation food waste. This should be a minimal requirement, involving distribution of collection bags and collection of the bags once full or instructions for vendors on where to leave bags.
- 2) Two staff people during the morning of the event, starting at least two hours prior to the event opening. These individuals would need to interface with food vendors and distribute compostable bags/bins for collection of food scraps. One staff member should periodically circulate through the event during the remainder of the day to answer any vendor questions and take any full bags, if necessary. At approximately two hours prior to the end of the event additional bags should be distributed to vendors for the end of the day collection.
- 3) Three-four staff people to assist with collection and removal of collected compost materials, starting approximately 30 minutes prior to the scheduled end of the show.

- a. Collection carts need to be rolled out to the head of each row of booths starting approximately 30 minutes prior to the end of the event.
 - b. Starting immediately after the end of the event, carts need to be rolled to the middle of rows for vendors to discard full bags and other items for composting.
 - c. Staff can circulate around collecting wastes in the carts, full bags, and assisting vendors in removing packaging from compostable items.
 - d. Full carts need to be taken to the loading dock (or a prearranged location) for collection by the hauler. One staff person may need to assist in loading materials into the vendor's vehicle.
- 4) Training of collection staff will be essential. While food scrap collection is not a hard concept to learn, contamination of collected materials must be minimized through training of collection staff. Additionally, appropriate information should be given to the collection staff on interfacing with food vendors, distributing collection bags, not interfering with the show when collecting materials, and efficient collection techniques for the end of the show "collection rush."

SECTION 5. COMMUNICATION & PROMOTION

Communicate the food waste diversion plan to all relevant stakeholders.

Organizers/management support

Hallsmith Sysco has adopted an "Energy Green Commitment" to reduce its energy use on a company-wide basis. Certainly a similar policy for greening its solid waste stream would lend significant credibility to its efforts to reduce waste through composting and recycling.

If Hallsmith Sysco can work with the hotels to successfully implement both recycling and composting the company could reduce its waste disposal needs by more than 90%. While some unrecyclable paper and plastic (particularly wrap) would remain, the weight of these materials is insignificant compared with the recyclable and compostable materials that can be diverted from the food show events.

Vendor Education

- 1) Vendor personnel often return for some or all regional food shows. However, new vendor staff will need to be given information about the food diversion efforts.
 - a. A handout and brief overview of the effort is all that should be required. This can be done when compostable collection bags are distributed.
 - b. Hallsmith Sysco may want to insert a "Food Show Greening Policy" in vendor packets, including reuse, composting, and recycling guidelines.
- 2) As Sysco staff circulate through the event it would be very beneficial for them to offer positive support to the vendors for participating in the food waste diversion efforts. Perhaps Sysco staff could distribute compostable bags as they go through the Food Show and promote the collection to vendors.
- 3) Vendors will need to be required or provided with incentives to remove packaging from display foods to be discarded for compost. Due to the time involved with this task vendors will be reluctant to comply.

- 4) Hallsmith Sysco might consider a recognition program for vendors that exhibit the most effort in waste reduction, recycling, and composting. Perhaps a “Green Star” program, vendors could display the “star” or other logo on their booth. Or, a “Certified Sysco Green” program. Other recognition could also be provided.

Staff

- 1) It is essential that all Hallsmith Sysco staff at the food shows be briefed about the reuse, compost collection, and recycling efforts at the events.
- 2) It is important that Hallsmith Sysco staff be dedicated and lead by example. For example, as Hallsmith Sysco staff refill the attendee water bottle distribution containers, it is important that they place the cardboard box packaging in the recycling bins.
- 3) Training for collection staff will be required to review acceptable materials, collection logistics, etc.

Container Labels/Signage and Bin Station Signage

- 1) Additional signage and labeling is needed on the organics and recycling containers that Hallsmith Sysco purchased for use at the shows. Labels that simply describe what is “acceptable” and “not acceptable” would be beneficial in reducing contamination.
- 2) Signage at each “station” stating “Hallsmith Sysco Goes Green” would make these stations more prominent and provide promotional benefits to Hallsmith Sysco.

Additional Outreach to public

- 1) At the food diversion pilots, Hallsmith Sysco had an effective “Hallsmith Sysco Goes Green” display. The vendor education flier was displayed on the table.
- 2) An insert in the folder given to food show attendees might be a additional positive way to promote the greening effort.
- 3) If collection of compost is extended to the public a significant education effort will need to be undertaken.
- 4) Consider making announcements of the “greening effort” over the intercom throughout the day.

SECTION 6. EVALUATION

- Ask the food bank for estimated tonnages from food reuse (if applicable).
- Work with the compost collector or processor to weigh or estimate volumes of materials diverted through composting.
- Ask the compost processor if there were any problems with contamination.
- Take photos of the event composting and recycling.
- Ask vendors, event organizers, and staff for comments about the composting effort.
- Prepare a brief report on the project including strategies used, amount of material diverted, comments and suggestions from participants and future recommendations. Share the results with event organizers. Prepare a press release.
- Evaluate the costs of composting and recycling vs. waste disposal.
- Document the amount of compostable products purchased that replaced plastic products.