

Organics and Foodservice Packaging Composting Infrastructure in the U.S. and Canada

The Overview



Research Overview



PURPOSE

- Assess and inventory North American commercial source-separated organics composting facilities for residential and business generators
- Identify composters willing and able to accept food scraps and compostable packaging materials

APPROACH

- RRS researched over 400 compost facilities in North America between August and October 2017
 - Surveyed facilities directly via phone call or email
 - Gathered data from additional facilities via web research

Composters Targeted



NORTH AMERICAN COMPOSTERS THAT ACCEPT FOOD SCRAPS

- Compiled list of facilities from RRS database and corroborated with external sources
- Briefly researched and selected facilities that were most likely to accept food scraps and were operational

VARIOUS FACILITY TYPES

- Municipal/County/Provincial
- Commercial facilities
- Institutional, including universities and correctional facilities
- Agricultural/Farm facilities

Results



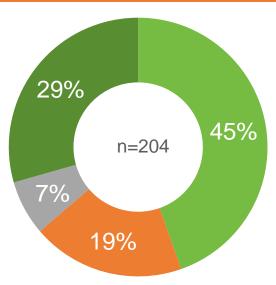
Incoming Materials



Composters most frequently noted that food waste makes up 25% or less of the material they process, and most process very little to no FSP.

Facilities' Food Waste Processed as % All Material Received

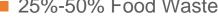
Facilities' Compostable Packaging Processed as % of All Material



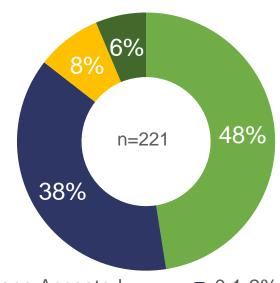


25%-50% Food Waste

■ 50%-75% Food Waste



■ 75%-100% Food Waste



■ None Accepted

2-5% Packaging

■ 0.1-2% Packaging

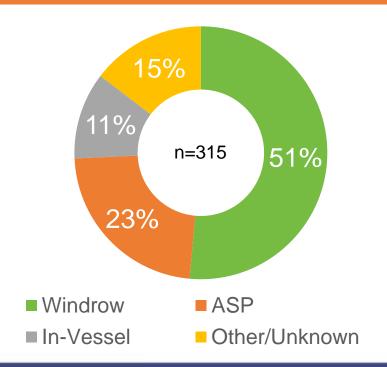
■ >5% Packaging

Technology

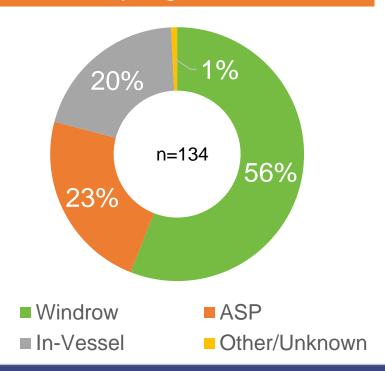


Windrow technologies were most common among all surveyed facilities, as well as those accepting FSP.

Technology Used by Surveyed Facilities



Technology Used by FSP-Accepting Facilities

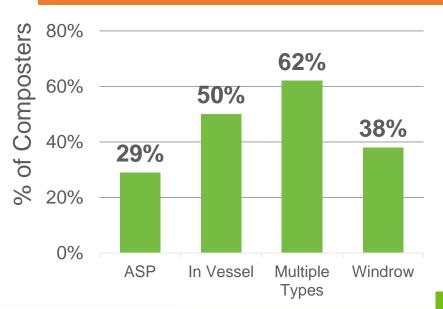


Materials Acceptance: Technologies

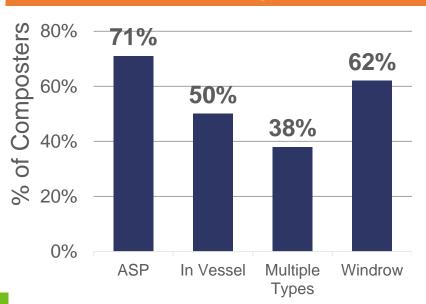


Of composters that use in-vessel or multiple processing technologies and indicated what types of compostable packaging they accept, >50% will take both paper and plastic FSP. In contrast, more than half of those that use ASP or windrow technologies do not accept compostable packaging at all.

Facilities That Accept Paper & Plastic FSP, By Technology



Facilities That Do Not Accept FSP, By Technology



Materials Acceptance: Sources

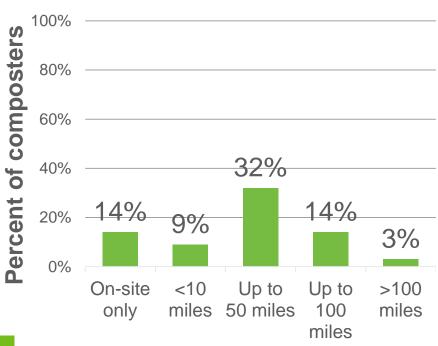


Surveyed composters most commonly accept material from residential sources, and 10 to 50 miles is the most common distance from an incoming source to the facility.

Sources of Incoming Material

80% 73% 66% 35% 35% Residential Commercial Institutional

Distance from Source to Facility

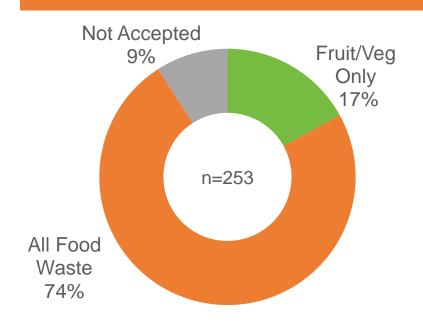


Materials Acceptance: Food Waste

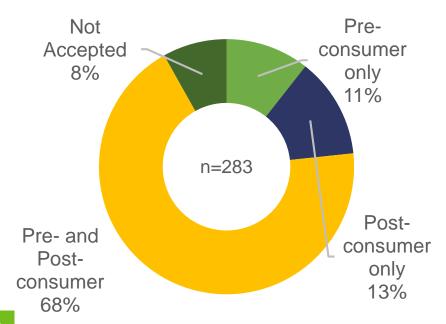


The majority of composters accept all types of food waste. Additionally, food waste acceptance is not usually limited by whether the food is pre- or post-consumer.

Types of Food Waste Accepted



Pre- and Post-Consumer Food Waste Acceptance



Materials Acceptance: Compostable Products



The most commonly accepted compostable packaging types are compostable plastic bags, uncoated foodsoiled paper and paper bags.

Other types for which acceptance was measured include:

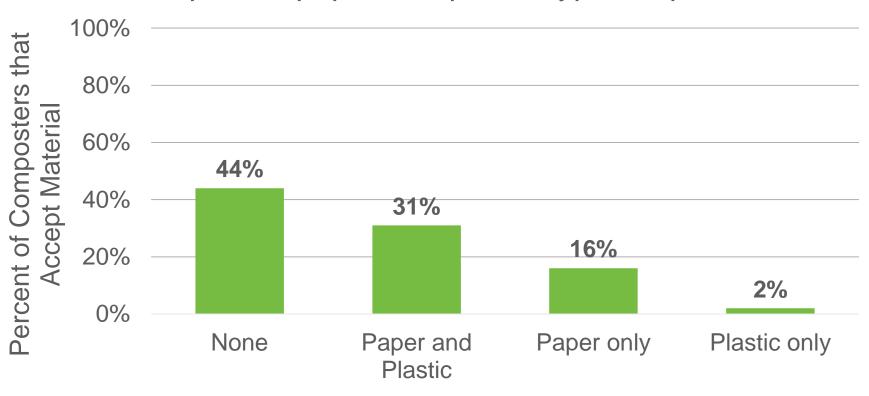
- Compostable plastic cups/plates
- Compostable plastic cutlery
- Corrugated boxes

- Molded fiber containers
- PE coated food-soiled paper
- PLA coated food-soiled paper

Materials Acceptance: Compostable Products



Composters that accept compostable products most often accept both paper and plastic types of products.



Compostable Product Material Type

Materials Acceptance: Requirements



- BPI certification and meeting ASTM standards were the most common requirements for facilities to accept compostable packaging.
- Acceptance requirements vary widely among facilities, with no strong geographic trend.

FSP Acceptance versus Processing Capacity



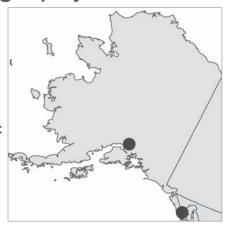
Many composters that accept no or paper-only compostable packaging are located in the northeastern US/eastern Canada, but otherwise there are no strong trends between types of compostable packaging accepted, amount of incoming material and geography.

FSP Acceptance

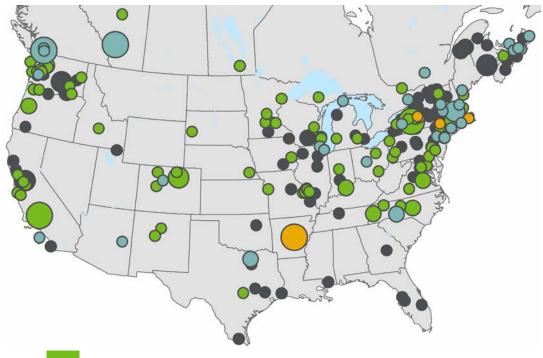
- Paper
- Plastic
- Paper and Plastic
- None

Capacity in Tons/Year

- 0 50,000
- 50,000 100,000
- 100,000 150,000
- () 150,000 200,000







Complete study results, including a spreadsheet with all the data collected during this study, are available only to members of FPI's Paper Recovery Alliance and Plastics Recovery Group.

To learn more, please contact Lynn Dyer at ldyer @fpi.org.

