

By Chaz Miller

Food Waste

Yearly food waste composting has increased by 180,000 tons since 1995.

FOOD WASTE INCLUDES UNEATEN portions of meals and trimmings from food preparation activities in kitchens, restaurants and cafeterias. Food waste is the third-largest component of generated waste by weight. Because of its low composting rate, food waste is the largest component of discarded waste by weight.

According to a study by the University of Arizona Garbage Project, each American throws away 1.3 pounds of food a day, which amounts to 474.5 pounds per year per person. This is more than twice the estimates of the U.S. Environmental Protection Agency (EPA). In response to the study and another one by the U.S. Department of Agriculture (USDA), EPA revised its data methodology from the late 1990s to the present. Increased consumption of packaged foods was a key factor in causing food waste's share of the solid waste stream to decrease by 15 percent from 1960 to 2003. USDA estimates that higher percentages of fruits, vegetables, dairy and grain products are thrown away, while lower percentages of meat, dried beans and processed foods are discarded.

Food waste composting is in its infancy and is held back by cost and vector control concerns. However, large-scale projects in San Francisco, Seattle and Toronto should be successful.

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 *2003 USEPA ESTIMATES

Food Waste Municipal Solid Waste (MSW) Facts:

Generated:

- 27.6 million tons per year, or 11.7 percent by weight.*
- 189.8 pounds (lbs.) per person per year.*

Composted:

- 750,000 tons, which is a 2.7 percent recovery rate*
- Organic and highly compostable.
- Grocery store food processing trimmings are a prime resource for composting facilities.
- 350 food waste composting sites in 2000, mostly at institutions such as prisons or colleges. A small number were off-site composting facilities, usually with yearly throughputs of 5 to 100 tons.
- New Jersey and Minnesota lead the nation in food composting.

The Composting Process:

- Composting is the controlled decomposition of organic matter by microorganisms into a humus-like product by generating heat and energy to destroy weeds, plants and human pathogens.
- Backyard compost piles with food wastes must be tightly controlled to eliminate pests.

Composting Cost:

- Tipping fees usually are charged for

incoming food waste.

Incinerated or Landfilled:

- 26.8 million tons per year, or 16.4 percent of discarded MSW by weight.*
- Usually the wettest component of MSW, with moisture content of 70 percent and Btu value that is one-third of that of MSW.

Landfill Volume:

- 21.4 million cubic yards (cu. yds.), or 5.3 percent of landfilled MSW (1997 data).
- Food waste can decompose into methane in a landfill.

Density:

- Landfilled food waste weighs 2,000 lbs./cu. yd.
- Food scraps and solid and liquid fats weigh 412 lbs. in a 55-gallon drum.

Source Reduction:

- Packaged foods create less food waste.
- In-sink kitchen disposal units transfer disposal of food waste to the wastewater system.

End-Market Specifications:

- Each facility has its own specifications. Non-organic materials such as metals and plastic must be kept out.

Food Waste Tonnage and Composting by Tonnage*

