

BACKGROUND ON FOOD RESIDUALS GENERATION AND RECOVERY

In 2005, the United States recycled 32.1 percent of the 246 million tons of municipal solid waste (MSW) generated from residential, commercial, and institutional sources. The U.S. Environmental Protection Agency (EPA) set a goal for the nation to increase its recycling rate to 35 percent of total MSW by 2008. In order to meet this goal, EPA estimates that the food recovery rate must increase from 2.4 percent to 13.2 percent.

Food Residuals Generation

Food residuals comprise approximately 11.9 percent of the MSW stream (or 29.2 million tons) and are the single largest component of MSW generated by weight. Currently, we recover only 2.4 percent of the discarded food residuals. Food residuals constitute more than 11.9 percent of all waste actually disposed in U.S. landfills and incinerators.

Supermarkets, restaurants, and institutional establishments such as schools, hospitals, and prisons have high proportions of food discards in their garbage. Supermarket waste is 75 to 90 percent organic materials; school and restaurant waste is 74 percent organic materials. A study compiled by Draper and Lennon Associates estimated the following food residuals generation rates:

- Schools: 0.35 lbs/meal
- Health care: 0.6 lbs/meal
- Prisons: 1 lb/inmate/day
- Conferences: 0.6 lbs/meal
- Supermarkets: 3,000 lbs/employee/year

Composting: An Opportunity to Convert Garbage to “Black Gold”

As the animal feed and rendering markets are declining, composting food residuals presents the best opportunity for large-scale food residuals diversion, second only to “food rescue” for human consumption. EPA estimates that the market for high-quality finished compost is larger than the supply and that 800 million tons of finished compost could be produced for applications in agriculture, silviculture, residential applications, nurseries and landscaping.

The Benefits of Compost

Compost is a valuable resource that can reduce fertilizer, fungicide, and pesticide needs on crop land, thus reducing the need for chemicals manufacture and application and potential for air and water pollution from excess runoff. Compost also increases the nutrients in the soil and can decrease the erosion and compaction of soil. With global climate change predictions of increased drought and flooding conditions, the addition of compost to compacted river banks may be an effective adaptation strategy to reduce the negative impacts of river flooding and increase the soil’s capacity to absorb water and decrease stormwater runoff. Compost also has been proven to be an effective pollution remediation technique for contaminated soils.

Diverting food residuals from landfills will greatly reduce methane emissions from landfills, resulting in significant greenhouse gas benefits. Composting all of the 29.3 million tons of food residuals generated each year would avoid more than 4 million metric tons of carbon equivalent—comparable to taking more than 2 million cars off the road for one year. This estimate does not take into account the potential additional greenhouse gas benefits of carbon sequestration in the soils that are amended with compost.