

Composting Case Studies

Arizona

The Pinetop-Lakeside Sanitary District composts 12 to 15 tons of mixed MSW every week. All the garbage is composted together and the noncompostable items are filtered after composting. The composting takes place in a closed building and gases are filtered with large biofilters. The finished compost is sold to a potting soil manufacturer for \$6 per yard. The cost to operate the plant is approximately \$100 per ton.

Florida

Pembroke Pines, Florida, has operated a composting facility since 1991. At one point, the plant was processing 550 tons per day of mixed MSW from four cities. However, an odor problem caused the plant to shut down for more than 2 years while repairs were made to the air scrubbers and treatment portions of the plant. Plant operators hope these changes will improve the air quality as well as the quality of compost. The composting facility is owned and operated by a company that has invested more than \$3 million to improve the plant.

Michigan

Mackinac Island, Michigan, is a tourist destination that receives a seasonal influx of people and with them an increase in MSW. During summer months, the population swells to 5,000 people (in winter the population is 600). Landfill discards and recyclables need to be transported by boat. Since 1992, the community has changed its strategy of disposal from a mixed-waste-stream approach to a source-separated approach. Recyclables are collected separately. Compostable items are collected in compostable bags, which are collected daily. Bag and contents are ground up, mixed with manure, and composted for about 70 days. Material is turned over with a front-end loader.

Washington

In Ferndale, Washington, a plant is ready to operate at a capacity to compost 125 tons per day. This large-scale composting facility will use a series of magnets to recover steel and aluminum before composting. The remaining organic material will be processed through a digester for 2-3 days and then placed in vessels for a month. Compost will then cure for 4-6 weeks before being sold.

The Netherlands

In 1994, the amount of household organic waste and yard trimmings that were composted rose by 30 percent. Approximately 30,000 tons of organic waste was processed in a year by one composting facility. A portion of the mature compost goes toward growing mushrooms.

Canada

The total amount of organic waste being processed in Canada has doubled since 1993. Canadians are now composting 697,000 tons per year in 161 composting facilities. Of those facilities, 111 are owned by the municipality and 50 are owned privately. Composting in Canada diverts 11 percent of the country's 6.2 million tons of organic waste. Most of this organic waste is made up of yard and garden waste.

England

In 1993, the town of Castle Morpeth began a program of collecting household organic waste. Since then the town has sold £10,000 worth of compost to 30 garden centers. The income from the sale of the compost, as well as recycling credits paid by the local authorities, has paid for the cost of the composting program.

Source: Steuteville, Robert and Nora Goldstein, "Solid Waste Composting Update," *Biocycle*, (November 1993): 56-61; World Resources Foundation, *The Warmer Bulletin* (Kent, UK: World Resource Foundation, November 1995).