SATISFYING DEMAND FOR BACKYARD COMPOST BINS

The Regional Solid Waste Management Plan (RSWMP) for the Portland, Oregon region encompasses the more than 1.3 million residents in three counties and 24 cities who are served by Metro, the only directly elected regional government in the United States. Metro provides transportation and land-use planning services, and oversees regional disposal and recycling and waste reduction programs. The regional plan — covering 1995-2000 — is based on the resource management hierarchy, which assigns the highest priority to waste prevention.

In the mid-1990s, Metro identified an expanded home composting program as the major recommended practice in the RSWMP to address residential waste prevention. The key elements include composting workshops, demonstration sites, bin distribution and promotion, and education. Monitoring and evaluating the effectiveness of the program has been a priority.

The RSWMP projected that by 2000, annual diversion from households using home composting bins would be 11,000 tons above the baseline diversion level achieved in 1995 by bin-using households. In the next five-year period, annual diversion from this activity was projected to increase by 12 percent for a total of 12,400 tons/year of new diversion by 2005. The projections were based on distributing home composting bins to 15 percent of single-family households in the region. The assumption was that 80 percent of these households would divert 66 percent of their food scraps and yard trimmings.

In 1994, Metro introduced a five-year subsidy program to sell compost bins to residents at the discounted price of $25. Since that time, Metro has stopped subsidizing on a per-bin basis, instead paying for advertising and sale setup as part of a long-term contract with the manufacturer, Norseman Plastics. A total of 60,000 bins have been distributed in the last six years at the same cost. They are available through two-day truckload-sale events at multiple locations.

PROGRAM EVALUATION

A comprehensive evaluation of the home composting program was completed last year. The report identifies key findings about the behavior of regional households, bin owners, and composting workshop attendees. The objective was to determine how well each of the home composting elements of the RSWMP are working and assess what progress had been made toward specific diversion goals. Other areas of focus for the report were reassessing program benchmarks, determining evaluation methods, and identifying opportunities to increase the effectiveness and efficiency of the program.

The findings of the report were surprising. Metro staff had assumed that the demand for compost bins would be saturated after many years of sales. In fact, strong unmet demand still exists in the region and could exceed 100,000 bins. Forty-four percent of all single-family households in the region compost at home using a variety of methods. At current levels, it will take over ten years of annual sales before demand is saturated. The bin distribution program alone has accounted for 47 percent of the growth in the region's home composting participation rate.

The report substantiated an assumption that more homeowners are ready to compost food residuals if they have an enclosed bin. The evaluation found that the average bin owner composts 925 lbs of food and yard trimmings annually. Total diversion last year — from 44,275 households that purchased a bin from 1996-2000 — was 20,365 tons, or 7,062 tons more than in 1999.

The annual cost of the bin distribution program is just over $100,000, with just over half of this spent on advertising (52 percent). Other costs include the bin distribution contract (22 percent), Metro staff time (22 percent) and supplies (four percent). For an average sale, approximately 8,500 bins are purchased. A new bin owner composes an average of 925 lbs of yard trimmings and food scraps each year. With a bin lifetime of ten years, this represents a total diversion of 4.6 tons/bin. The total program cost to Metro for bin distribution is just under $6/ton/year, which is considerably less than the program cost of $125/ton/year for curbside collection of yard trimmings. These figures confirm Metro's plans to continuing offering residents a bin distribution program.

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