by Terry Guggenbuehl and Kathy Corcoran

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An important component of a comprehensive yard debris program is reducing yard waste generation.

A prescription to reduce yard debris

Throughout the nation, state after state has enacted legislation banning the land disposal of yard debris such as leaves, grass clippings, tree trimmings and Christmas trees. Because of legislative actions, cities and counties are rapidly developing programs for the collection and composting of yard waste.

The success of various yard debris recovery programs is frequently touted in the pages of this journal. There is no doubt that community-wide collection and processing of yard debris is necessary to handle the large volumes of material generated. It is also essential to incorporate source reduction activities into any large-scale yard debris program because a program that has been so modified is the most cost-effective method of managing yard debris. It will also improve yard debris collection and processing by modifying the peak flows of incoming volume of debris.

Reducing the generation of yard debris at its source should be the first priority in developing a comprehensive yard debris recovery program. Effective source reduction activities can have a significant impact on the design of a comprehensive system. Material that does not have to be collected, transported, processed and marketed simply saves money. Fewer trucks or less frequent collection will be needed to collect debris; perhaps processing sites could be smaller or less labor required. Depending on the level of commitment from decisionmakers and participating residents and businesses, it is possible to reduce the generation of yard debris by 5 to 20 percent through basic reduction methods.

All too often, the responsibility for source reduction is placed on the citizen alone. Source reduction programs aimed at residents are common, easy to implement and produce positive results. More effort needs to be directed at yard debris source reduction by businesses, institutions and publicly owned properties, because they are large generators of yard debris and because they need to participate more directly in source reduction activities.

Reduction methods

Aside from calamities such as prolonged drought, desertification and other climatological changes, source reduction of yard debris is the responsibility of the landowner or landtender. Recommended methods of reducing the generation of yard debris will vary according to local climate, economic status of the community, neighborhood, or landowner, and other factors.

Backyard composting. Many homeowners have compost piles consisting of garden wastes, leaves and other yard debris. Several varieties of compost bins are commercially available, although many people improvise their own. Concerns about odors and level of effort required can be alleviated through education. Low-income homeowners or renters simply do not view source reduction of yard debris as a high priority. Small yards and the cost of bins are larger impediments for them than for middle-income residents.

Composting of yard debris at apartment buildings, commercial buildings, or institutions is uncommon because it is not perceived as economical. Gardeners, landscapers and groundskeepers need to be instructed, if not required, to compost yard debris at the job site. Public grounds such as parks, trails and lawns at government facilities need to have areas designated for composting their green wastes.

Landscape planning and alteration. For landowners and developers, yard debris reduction can translate into lower maintenance requirements. Every new residential development and most commercial and institutional developments
deed, eco-labels represent an additional way for companies to differentiate their products and packaging.

**Conclusion**

The markets for source-reduced and recycled materials continue to emerge. However, as more Americans recognize that solid waste management is becoming problematic, they, as consumers, will increasingly seek out products and packaging that promote source reduction and recyclability. Five marketplace activities that can be used to increase the availability and success of such goods have been discussed in this paper. If marketplace initiatives do not succeed in the near future, solid waste management officials will likely seek to mitigate the solid waste management crisis through a greater mix of regulatory and economic controls.

**References**


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**Acknowledgement**

The authors would like to thank Truett DeGeare, U.S. Environmental Protection Agency, for comments on an earlier draft of this paper.

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could incorporate some form of yard debris reduction in their landscape planning. Existing developments could consider altering their landscapes to provide the same result.

Landscape planning and alteration includes planting native vegetation (especially appropriate in desert areas), planting low-maintenance vegetation (e.g., trees and shrubs that do not need pruning, ground covers instead of turf grass), and planning space for compost piles and brush chipping. Los Angeles has enacted an ordinance that requires new commercial developments to have a landscape plan that provides for xeriscaping, or landscaping for low water usage. Although the impetus for the ordinance was the need to reduce water usage, it has the added advantage of reducing yard debris generation.

Reduced maintenance. A simple source reduction method is to maintain lawns and grounds less intensively. This means that instead of cutting grass once a week, it may be cut once every two weeks. The same principle applies to the pruning of woody vegetation. A desire to fit in with one's neighbors and a cultural preoccupation for organization and neatness have trapped homeowners into rituals resulting in precisely trimmed ornamental shrubs and neatly manicured lawns. The "American Way" of pride in one's lush lawn has supported a massive industry that promotes imaginative concoctions to make sure your lawn grows fast, thick and weed-free. Fertilizers and frequent watering not only increase yard debris generation but also affect groundwater and surface water supply and purity.

Home mulching of grass clippings and home chipping of brush. If a homeowner or business owner must have a lush lawn and precisely trimmed woody plants, she or he should take measures to minimize disposal of grass clippings and prunings. Grass clippings can be left on the lawn after cutting with minimal unsightliness and trouble. Lawn maintenance experts advise homeowners to leave some grass clippings on the lawn to insulate roots from temperature extremes and to increase water holding capacity. Clippings could also be collected and placed in a backyard compost bin or placed in gardens or flower beds as a mulch. These activities require less effort than bagging the clippings for refuse collection and they benefit the grounds as well.

Prunings are not as easily handled. For homes and businesses that generate consistent volumes of prunings, the cost of $100 or more to purchase a small chipper may be justifiable, but for most people, it would be difficult to justify the purchase. Rental from a business or a sponsoring government or organization is one way to handle prunings.
Implementation methods

The implementation of source reduction activities should encompass a variety of measures that target certain materials or generators. For instance, brush generated by land grubbing or land clearing operations could be chipped on site. Implementation of this activity could be accomplished through provision of chippers or grinders, informative brochures, or regulations requiring that brush be handled on site by land clearing or land grubbing businesses.

Actions necessary for implementation of yard waste reduction ideas generally range from regulations (e.g., ordinances requiring xeriscaping or low water use landscaping for new residential construction) to intensive public information (door-to-door home instruction as planned by Seattle). Other more established implementation techniques include multimedia public education (brochures, video and advertisements), demonstration facilities, and group instruction (such as Seattle’s Master Composter program).

Public information — multiple targets and multiple media. The simplest implementation activity is the preparation and distribution of public information materials such as brochures and advertisements. This is a good first step because the materials can be disseminated at any time — there is no need to have a collection or processing system in place.

A theme and identification logo should be established from the start and maintained on all subsequent information. Eventually, the public information items should include a variety of target groups, messages and media. Videotape, television commercials, billboards, workshops and special events (e.g., parades, festivals, neighborhood events) should be considered for specific target groups such as a single-family homeowners, gardeners and businesses. Groups with special needs such as neighborhoods with high percentages of non-English speakers or people with physical impairments should also be targeted for customized public information.

A highly effective method of public information is to offer hands-on demonstrations of source reduction methods for yard debris. This could entail constructing a multi-use demonstration area in a highly visible location or simply setting up a sample compost bin in a park or other public area. A multi-use demonstration area may encompass one to three acres; it may have a full-time attendant or be staffed by volunteers; it may include backyard composting techniques, low-maintenance yard care methods, composting, and yard waste reduction ideas.

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Regulations seem to work best when they target construction of new housing, commercial buildings, or other developments that may produce plant wastes. Through a city's building, planning, or zoning department, administration and enforcement of requirements for landscaping (e.g., water use requirements, type of plantings) could be conducted. Landscaping requirements for new construction should target maintenance requirements that may generate large volumes of yard debris as well as provisions for handling yard debris on-site. These requirements are most cost effective when applied to larger developments rather than single-family homes.

Conclusion
Source reduction of yard debris should not be the orphan child of a comprehensive yard debris program. It is an essential component of any yard debris program—from small neighborhood compost sites to large-scale countywide collection and processing programs. Communities should recognize that aggressive source reduction efforts have a significant, though difficult-to-measure, impact on the costs of collecting and processing leaves, grass clippings, or brush. There are a variety of approaches to source reduction of yard debris. Each community must determine the programs that will work the best.

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