

Yard waste composting - Portland's success story

by Tom Watson

Yard debris recycling seems so logical. The material makes up a significant portion of the waste stream, it's not technically difficult to recycle and strong markets exist for the final product.

But at this point, there's a lot more talk about yard waste collection and composting than there is action. One of the few places major progress has been made on yard waste is the Portland, Oregon area. Two private companies there that produce soil amendments accept a total of nearly 300,000 cubic yards a year - about 25 percent of all yard waste generated in the area. Nationally, the percentage of yard debris in the waste stream averages about 17 percent. In metropolitan Portland, because of the high recovery rate, it's only 10 percent.

Air quality concerns

This success story started nearly eight years ago. Ironically, it was concern over air quality, not waste disposal, that got the ball rolling. Several government agencies concluded that the burning of yard debris in backyards was contributing to air pollution.

-The federal Environmental Protection Agency came up with grant money to fund a demonstration project to see if yard waste could be composted and marketed. Portland's Metropolitan Service District, or Metro, a government agency that provides certain planning and administrative services in Multnomah, Washington and Clackamas counties, received the grant and set up a program.

Metro convinced three companies to participate. One is now out of business, but the other two, Grimm's Fuel Co. and McFarlane's Bark; are going strong. They accept yard waste for a fee (which is substantially lower than landfill disposal cost, in most cases) and then compost it and use it in various soil amendment products. They sell these products, in bulk, to the public, landscapers and nurseries.

Landfill diversion

The yard waste program is no longer associated with air quality. It is now entirely focused on keeping as much material out of the landfill as possible, says Dennis Mulvihill, waste reduction manager for Metro's solid waste department. He lists Metro's three major roles related to yard waste composting: providing technical assistance to the two processors; promoting yard waste recycling and educating the public; and providing marketing assistance to the processors.

"We know we've had an impact," says Mulvihill, citing Portland's low percentage of yard debris in the waste stream. But Metro and the processors don't plan to stop now. Within five years, the percentage of yard waste recycled in the Portland area will reach at least 50 percent and possibly 75 percent, Mulvihill predicts.

"Over a period of time, I think Metro's goal of 75 percent recovery is realistic," says Bill Bree, recycling specialist for the Oregon Department of Environmental Quality (DEQ).

Bree believes the Portland area has the most effective yard waste composting program in the nation. Grimm's and McFarlane's, the processors, are more advanced in product development and product marketing of yard waste than anyone else in the country that he knows of, Bree adds.

In many other places, he points out, officials planning yard waste composting programs are talking about government subsidies and having the government as the main user of the final product (in parks or municipal golf courses, for example). In contrast, neither Grimm's nor McFarlane's receive subsidies, and they successfully market their products to the private sector.

Curbside collection possible

Yard waste collection in the Portland area



1 At Grimm's Fuel Co., the first composting step occurs when yard waste is ground and moved by a conveyor to a pile.

2 The public brings pickup loads of yard waste to the receiving area at McFarlane's Bark.

may soon receive a boost from Oregon's landmark Recycling Opportunity Act. This law requires on-route collection of recyclable materials, or an acceptable alternative, at least once a month in cities with 4,000 or more people. The Oregon Environmental Quality Commission has designated yard debris as a principal recyclable material.

However, the commission has said this designation will not go into effect until DEQ writes more regulations clarifying the range of acceptable alternative methods of collection. Bree is working on this now. Because the formal process requires a lot of time, he does not expect the issue to be resolved until at least next winter.

Two communities in the tri-county area, Gladstone and Oregon City, have already started curbside collection of yard waste.

Grimm's Fuel Co.

In the period between August 1987, and
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Yard waste

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August 1988, Grimm's Fuel Co. will process about 200,000 cubic yards of loose yard debris, says company president Rod Grimm, who owns the business with his sons. About 30,000 cubic yards of that is coming from the Oregon City and Gladstone curbside programs, with an additional 60,000 being brought in from a stockpile at an area landfill. The rest is hauled in by landscapers, other businesses, public agencies and individuals. Grimm's accepts yard debris for a tipping fee of \$2.50 a cubic yard.

By August of 1989, all of that 200,000 cubic yards will be marketed, Grimm says. And he's looking forward to continued increases in production and sales.

Grimm's has not accepted as much yard waste as McFarlane's, especially in the early years of the program, but in recent years Grimm's has taken the lead in processing.

Currently, the composting process for some products takes five to six months, Grimm says. However, a new aerated slab composting system that Grimm hopes will be on line by midsummer should cut that composting time to 30 or 40 days. The \$250,000 facility, which Grimm designed himself, features suspended conveyor systems, concrete slabs with air in them, forced air, a hammermill and a trommel screen.

Grimm's produces and sells seven products that contain composted yard debris. Their main product of this type, called Garden Mulch, is 100 percent yard waste. Among the mixes, one consists of yard debris blended with sandy loam. In another, yard waste is composted with manures.

Homeowners are Grimm's largest market, with landscapers next. Nurseries are third, says Grimm, "and they are coming on very strong."

Grimm believes there are three keys to successful marketing of composted yard waste:

- "You've got to establish markets before you start getting the stuff in stockpiles," he says.
- A dependable distribution system must be in place at the beginning. Grimm's system is particularly efficient because the firm takes the tanks off its oil delivery trucks in the summer, installs beds and uses those trucks to deliver soil amendments.



McFarlane's produces various types of compost products, which are stored for sale.

- Precautions must be taken to ensure that no plant diseases or significant herbicide residues exist in products containing composted yard waste. This can be achieved by working with plant pathologists and making sure each batch is properly composted. Quality control is absolutely essential when selling to the nursery industry, Grimm emphasizes.

McFarlane's Bark

Like Grimm's, McFarlane's Bark is a well-established, family-owned business. The company began accepting yard debris in 1981 but has only done extensive processing and marketing the past few years.

Working with yard debris "has been kind of a painful learning process for us," says John McFarlane, the family patriarch and the company's chairman of the board. The pain has been mostly in the pocketbook, he says, adding that they are now "making a little money" with yard waste.

Indeed, McFarlane's has recently experienced an explosive increase in sales of composted yard debris products. In the six-month period from August 1987 through January 1988, sales were 328 percent higher than for the same period for the year before, says company manager Kathleen Keene, John McFarlane's daughter.

The company primarily uses yard debris in a product called "Compo-Stuff," which comes in fine, medium and coarse grades. It contains about 80 percent composted yard debris and 20 percent sawdust or bark dust. McFarlane notes that the addition of the sawdust or bark dust results in a fluffier and looser product, making it easier to process and easier for

customers to use.

The market for the product was mostly landscapers in the beginning, says Keene, but now consists of about 40 percent landscapers, 30 percent homeowners and 30 percent nurseries.

McFarlane's charges a tipping fee of \$3 a cubic yard to dump yard debris there, except for a special \$2 rate for senior citizens 60 and older.

Because they have only recently geared up their processing, McFarlane's has accumulated an enormous stockpile of 75,000 to 100,000 cubic yards of yard debris. This has generated some complaints from neighbors, says Keene, and the company has promised the state it will reduce the size of the pile.

To process yard waste, McFarlane's runs it through a large hammermill, then places it in piles for composting. Before it is sold, it is reground and screened, says McFarlane. New material is often mixed with older material. Some yard waste is processed and sold as quickly as a month after it comes in. Processed, composted yard waste has about one-seventh the volume of the original, unprocessed material.

Several other companies in the Portland area accept yard debris, but on a much smaller scale, points out Bree, of DEQ.

A possible cloud on the horizon for yard waste composting in Portland, says Bree, is that increased composting of sewage sludge and garbage could affect the demand for yard waste products. One potential competitor is a program Metro is planning, under which a private contractor would compost household garbage. RR