

2003 Compost Program Progress Report

submitted by

City of Lawrence
Public Works Department
Solid Waste Division
Waste Reduction and Recycling

EXECUTIVE SUMMARY

Solid Waste collection crews collected, accepted and processed 9,755 tons of grass and leaf waste from residential (curbside collection) and commercial (drop off) sources in 2003. Continued growth of this program has required the Waste Reduction and Recycling (WRR) Division to develop and implement a comprehensive educational program over the last four years, designed to reduce collection time on route, increase efficiency in processing the materials, and reduce contamination of the finished compost product. The Waste Reduction and Recycling (WRR) Division has promoted the use of cans, carts, and compostable yard waste bags as preferred setout containers – in lieu of plastic bags -- to meet these operational objectives.

In 2003, 34% percent of all containers set out on the curb with yard waste were “preferred containers”, i.e., cans, carts and compostable bags. This represents a 36% increase over preferred container setouts in 2002. The program’s success is due to the Waste Reduction and Recycling Division’s development of an effective behavior-change program through the combination of, a) neighborhood-based pilot projects; b) building local partnerships; c) development of a multi-media advertising campaign; and d) continuous evaluation and refining of educational activities.

The Waste Reduction and Recycling Division documented significant desired behavior change when residents set out their yard waste for collection. In a 2003 survey of past pilot participants, 76% of respondents reported continued use of compostable bags in their yard waste management. This is a significant improvement over previous years. Only 21% of respondents reported using plastic bags, citing the cost of paper bags and incompatibility with grass catchers.

To ensure availability of compostable fiber bags, a retail partnership continued to be cultivated with local retailers. Eleven retailers partnered with the WRR Division in 2003. To amplify local availability the WRR Division provided (at cost) over 2,300 bags to scout troops and school groups for their fundraising purposes.

By season’s end, the City had processed over 2,800 tons of finished compost. The WRR Division was unable to offer a community distribution due to detection of an unacceptable level of the herbicide ingredient, Clopyralid, in the material. To reduce Clopyralid contamination, WR/R staff is developing targeted educational materials for 2004 distribution. These materials will be distributed to area retailers, consumers, city employees, neighborhood associations, turf and sod producers and commercial lawn care providers.

The Solid Waste Division recommends plastic bags be prohibited from curbside collection of grass and leaves beginning in 2005. The elimination of plastic bags will:

- Increase collection efficiency by reducing collection time;
- Improve worker safety by eliminating need to cut open plastic bags with box cutters; and
- Yield higher quality compost by reducing contamination.

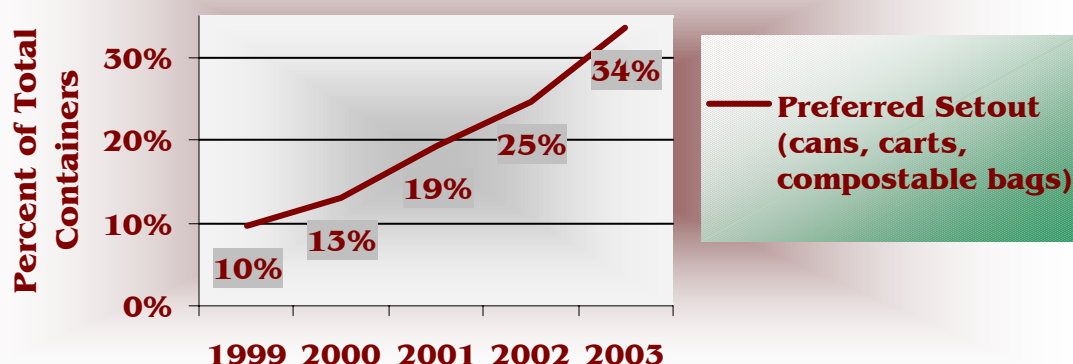
2003 YARD WASTE MANAGEMENT REPORT

2003 PROGRAM RESULTS

The City of Lawrence Solid Waste Division collected approximately 9,755 tons of grass and leaf waste curbside from residents in 2003. The grass and leaves were deposited at the City's Compost Facility, which was located at 901 East Eighth Street.






In 2003, approximately 34% of all yard waste containers were a can, cart, or compostable bag (Exhibit A). This is an increase of 36% from last year, and an overall 240% increase since 1999, the baseline year of the pilot program.

Exhibit A: Yearly Progression of Preferred Setout Rates



Neighborhood Pilot Program

The success in preferred container setouts is primarily attributed to our compostable bag pilot program. This program began in 2000 and has thus far served over 700 households, including the 228 participants from this year's pilot neighborhood areas:

-  North Lawrence
-  Oread
-  Barker
-  Quail Ridge East
-  Alvamar

To introduce the residents to the compostable kraft paper bags, participating households received bags throughout the growing season at no charge. The participants were educated about the disadvantages of using plastic bags for grass and leaves, and encouraged to utilize cans, carts, and compostable bags for yard waste setouts. Participants agreed to respond to surveys and provide feedback to the WRR Division regarding the utility of, and satisfaction with, the compostable bags.

Participants were surveyed mid-year to measure the perceived ease of loading, durability, and overall satisfaction with the compostable bags. While several cited difficulty transferring mowed materials from lawnmower grass catchers to paper bags, 71% of respondents still gave the bags a “good” or “very good” rating on ease of loading. Regarding durability, the majority agreed they were very durable, but wetness from rain or fresh grass caused some initial concern. Overall, 80% of respondents gave paper yard waste bags a higher rating than they gave plastic bags.

The response to our program has been positive (selected responses with permission to reprint):

“Thanks so much for this pilot program. I love the fact that you are not only urging, but also helping people to recycle properly. You're doing a great job.”










- Susan Erickson, Barker neighborhood

“I appreciate being able to be a part of this program. I didn't buy the bags in the past because of the cost. However, I am sure that I will continue to use the bags after the program has ceased.”

- Cathy Accurso, Oread neighborhood

Retail Partnership

Once the pilot period ends, participants are encouraged to continue using the preferred containers (cans, carts and compostable bags) for their grass and leaves. They are referred to our local retail partners for continued purchase of compostable bags. The retail partners for 2003 were:

- | | |
|--|--|
|  The Community Mercantile |  Hy-Vee (both locations) |
|  Wal-Mart |  Whelan's Contractor's Supply |
|  Cottin's Hardware and Rental |  Earl May Nursery and Garden Center |
|  The Home Depot |  Checkers Foods |
|  Westlake's Ace Hardware (both locations) | |










In exchange for carrying compostable bags throughout the entire growing season, participating retailers were included in the Division's yard waste campaign media, including radio, utility bill inserts, website, and newspaper advertisements.

Additional partnerships were secured with local scout troops and schools. This year, scouts sold over 900 compostable bags and schools sold 1,400 bags in their respective fundraisers.

Media Campaign

The Waste Reduction and Recycling Division's preferred yard waste container campaign uses a comprehensive media spectrum to reach the intended consumer markets. The campaign employs the alliterative phrase “Cans, Carts and Compostable Bags” across

print, audio, and television outlets; providing a mnemonic device to develop and improve the memory of the citizenry. Branding the City's yard waste collection and composting program with "Lawrence is Getting Smarter by the Yard" also provides a positive slogan and feedback to our citizenry (see Appendix A). Media channels utilized:

-  Radio
-  Newspaper
-  Bus boards
-  Utility bill inserts
-  Point of purchase shelf talkers
-  City cable channel
-  Employee Newsletter
-  Neighborhood Association newsletters
-  www.LawrenceRecycles.org

In 2003, representatives from our Solid Waste collection crews were brought to the KLWN radio station to record an advertisement encouraging cans, carts and compostable bags for yardwaste containers. A letter signed by our Solid Waste Division employees was also included with pilot participant's first delivery of compostable bags (see Appendix B). These testimonials personalized the City's curbside collection service, bringing credibility and greater understanding of the benefits using "cans, carts and compostable bags" to the public.

Behavioral Change

To determine efficacy of the pilot programs, retail partnerships, and media campaign, surveys were sent to previous years' pilot participants (2000-2002) to assess their behavior over time, in regards to their yard waste management methods.

The results were:




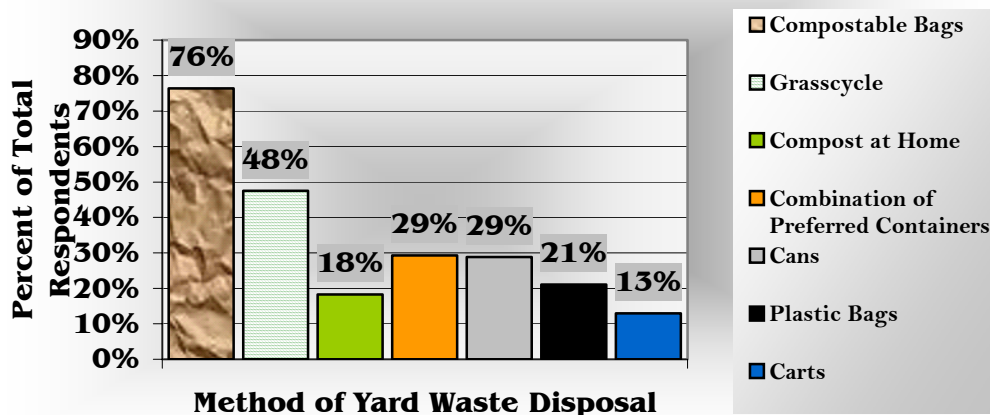
-  471 Surveys sent
-  246 Respondents
-  52% Response rate

Exhibit B¹ shows the survey respondents' current yard waste management methods.

According to our pre-survey of our first-year (2000) pilot participants, 0% was using the compostable bags before pilot startup. When surveyed again in 2003, 56% of the respondents from the initial pilot group showed continued use of compostable bags in their yard waste management. Data shows paper bag usage by past participants slowly decreases over time however use of durable cans and wheeled carts increases.

¹ Note: The percentage for each yard waste method is derived by dividing the number of respondents using that method by the total number of respondents. Thus, the bars will not add to 100% as a single respondent may employ multiple methods.

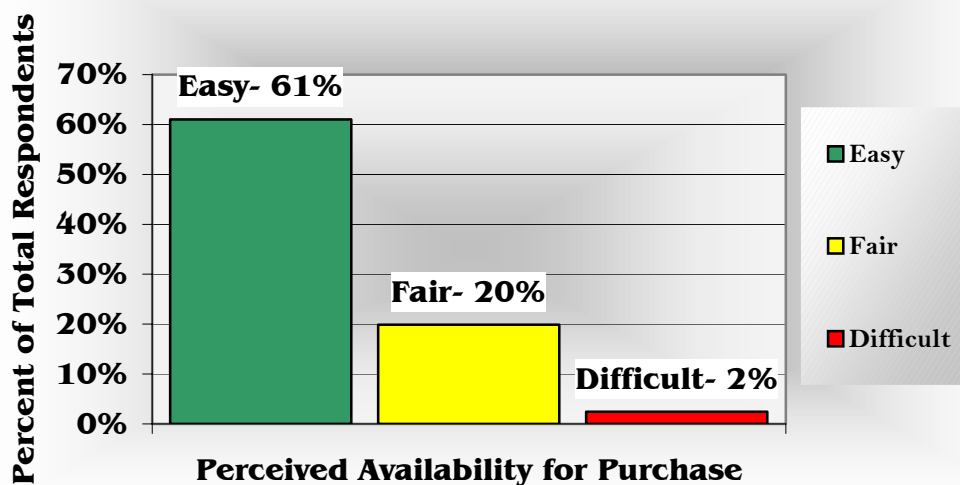
**Exhibit B: 2000 - 2002 Pilot Participants - Current
Yard Waste Management Methods**



The most frequent negative comments regarding fiber compostable bags were their cost and their size incompatibility with lawnmower grass catchers. These comments were behind nearly all who marked plastic bags as containers for their yardwaste. Many others who marked plastic wrote a note of “occasionally” or “when it rains” to explain their usage. To address the difficulty in loading, this year’s pilot participants were provided with hints for easier filling, referred to our retail partners for filling accessories, and provided a retailer’s discount coupon towards purchase of such items.

Past pilot participants easily located the compostable bags (see Exhibit C)² available at

**Exhibit C: 2000 - 2002 Pilot Participants - Ease of
Locating Compostable Bags for Purchase**



² Percentages in Exhibit C do not add to 100% due to the number of respondents leaving this question blank, such as those not purchasing compostable bags.

our Retail Partners. Also, 70% of respondents said they would definitely recommend the compostable yard waste bags to others.

Community Compost Distribution

Since 2001, finished compost material has been given back to the public in the fall. This year, the City's Solid Waste Division decided to cancel the distribution of compost due to recent laboratory findings of an unacceptable level of the herbicide ingredient, Clopyralid, in the finished compost. This particular herbicide does not degrade through the composting process and can kill susceptible plants such as tomatoes, potatoes, peppers, peas, beans and sunflowers. These "susceptible plants" are the very plants most often found in backyard gardens and nurseries - the most prevalent "user group" of the finished compost. The finished compost is not harmful to humans and would not create problems in turf-only applications.

The WRR Division wanted to test this year's compost prior to distribution due to the prevalence of documented harmful levels of Clopyralid found in municipal compost facilities in California, Washington, Oregon, Nebraska and Pennsylvania. A composite sample of Lawrence compost was sent to a laboratory in Moscow, Idaho and returned with the result of Clopyralid found at 52 parts per billion (ppb) – a level found harmful to susceptible plants.

Clopyralid is the active ingredient in several herbicide products used to control broadleaf weeds and exhibits low acute toxicity to humans while maintaining a high efficacy rate on target weeds. Because of these attributes, when properly applied, it provides great benefit in agricultural and commercial uses. The WRR Division believes transference of contamination occurs when Clopyralid is applied to residential lawns and then those grass clippings are set out for collection destined for our compost facility. Current research shows that Clopyralid does not break down readily during the composting process – unlike most other herbicides – and can negatively affect susceptible plants at low concentrations.

The 2,800 tons of finished compost remains at the City's 8th Street compost facility and the WRR Division will continue to test for Clopyralid degradation before any decision to distribute the materials to our community. In the meantime, it is suitable for use on turf applications and may be used on city projects when deemed appropriate.





RECOMMENDATION FOR COMPOST PROGRAM IMPROVEMENTS

The Pilot Program for compostable bags and preferred containers has been well received by the public and has proven to change the behavior of participants. Our media campaign helps remind pilot participants and brings other citizens on board, giving us a current (2003) 34% preferred container setout rate citywide.

The Waste Reduction and Recycling Division will continue the Pilot Program, Retail Partnerships, and Media Campaign, through 2004 to further encourage the use of

preferred containers, and educate the public on the benefits and ease of their use. During 2004, the Solid Waste Division will recommend to the City Commission restricting the use of plastic bags for curbside collection of yardwaste. The proposed change in ordinance language (Section 9-403.1(b)) would request residential yardwaste setouts be placed only in cans, carts or compostable bags beginning in 2005.

The elimination of plastic bags for grass and leaves will:

-  increase collection efficiency by reducing overall collection time;
-  improve worker safety by eliminating necessity to cut open plastic bags with box cutters;
-  reduce traffic congestion by decreasing loading time at the curb; and
-  yield a higher quality compost by reducing contamination.

The Division also recommends continuing the annual compost distribution events, after compost tests at a safe level for Clopyralid residue.

2004 Program Activities

The targeted neighborhood areas for the 2004 Pilot Program are:

East Lawrence	Pinckney
Sunset Hills	Perry Park
Western Hills	Quail Run
Sunflower	

Integrated within the pilot program, the WRR Division will work to increase the number of Retail Partners and continue the media campaign “Cans, Carts and Compostable Bags” for grass and leaf collection.

Public education and research on Clopyralid will increase in 2004. Staff will work to identify possible sources of the contamination and divert them from City compost. Lawn and soil care management methods to reduce the need for chemical herbicides will be included.

Lawrence. is getting smarter by the yard.

And we're doing it by placing our yard waste in the three smart containers.

1. Cans
2. Carts
3. Compostable Bags



Using any of these "preferred containers" for your yard waste increases both safety and collection efficiency while improving the quality of our finished compost.



LAWRENCE
WASTE
REDUCTION
& RECYCLING



832-3030 • www.LawrenceRecycles.org

TO DO

- ☐ Reuse my trash can for Monday lawn and leaf pickup.
- ☐ Rent a cart from the City for only \$2 per month by calling 832-3032.
- ☐ Purchase compostable bags from any of the following: Checkers, the Community Mercantile, Cottin's Hardware and Rental, Early May Nursery and Garden Center, Hy-Vee, Wal-Mart, Westlake's Ace Hardware, or Whelan's Contractor's Supply.

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LAWRENCE
WASTE
REDUCTION
& RECYCLING

Lawrence is getting
smarter by the yard.



Appendix B: KLWN/KLZR Radio Script

John Brown (Solid Waste Loader): Hi, my name is John Brown, and I work for the City collection crew that picks up your grass clippings and yard waste on Mondays. We all just want to give a big thanks to the people of Lawrence for using cans, carts, and paper bags for your yard waste. We're noticing less plastic bags at the curb, and that's a good thing for our crews, even better for the City compost piles.

If you are using carts, cans, paper bags- we just toss them in and go about our way. They're safer and easier for us to use. And with up to 3,800 stops per day, the less plastic bags we see, the happier we are. So keep up the good work, Lawrence!

Anne (Solid Waste Driver): Hey, tell 'em we look forward to seeing even less plastic bags in their neighborhoods this season.

By the way J.B....you did a great job on this radio ad, but you may want to keep your day job!

Announcer: Do the right thing by using cans, carts, and paper bags for your yard waste! Impress your neighbors- be the envy of the block! And at the same time, you'll make these guys really happy. For information, call the City's Recycling Office at 832-3030. With your help, Lawrence is getting smarter by the yard.

Appendix B (continued): Letter to Pilot Participants



MIKE WILDGEN, CITY MANAGER

City of Lawrence
KANSAS

CITY OFFICES 6 EAST 6th
BOX 708 66044-0708 785-832-3000
TDD 785-832-3205 FAX 785-832-3405
www.lawrenceks.org

CITY COMMISSION

MAYOR
SUE HACK

COMMISSIONERS
DAVID M. DUNFIELD
JAMES R. HENRY
MARTIN A. KENNEDY
MIKE RUNDLE

February 28, 2003

Mr. John Doe
1015 Any Street
Lawrence, KS 66044

Dear Mr. Doe:

The City's curbside collection crews want to thank you for setting your yard waste out in either a can, cart, or compostable bag. When people set their yard waste out in plastic bags, it makes our job more difficult, messy, and unsafe. Have you ever watched us pick up a load of plastic-bagged yard waste? We have to tear those bags open before dumping the material into our truck. This takes more time and is messier than it is with preferred containers. It also poses a safety problem because the more time that is spent at a house, the more traffic can back up on either side of our large truck. We go just as fast as we can, but splitting a plastic bag open, dumping it, and then holding on to it is much more time-consuming than just dumping a can or plopping an entire compostable bag into the back of our truck.

As a participant in the Waste Reduction and Recycling Division's Pilot Program, you may have already been aware of the problems imposed by plastic bags. Still, we wanted to let you know directly how much the collection crews appreciate seeing a can, cart, or compostable bag at the curb. In addition, the citizens utilizing our fall compost distribution also appreciate these containers, as all too often plastic bags can still slip in and contaminate that rich material.

Sincerely,

Your Monday Morning Yard Waste Collection Crews

Robert Z. Muehlen
Dan B. Smith
Eric J. ...
David Curtis
Bill Wilson
James ...
Shawn Elston
Cory ...
Steve ...
J. L. ...

Luis Mendez
MARK Kibgwa
Paul Barne
Jim Lauer
Bruce ...
Long ...
Bill ...

Daniel Jackson
Luis ...
Marc ...
Greg ...
Greg ...
Ken ...
Richard ...

cc: Bob Yoos, Solid Waste Division Manager



We are committed to providing excellent city services that enhance the quality of life for the Lawrence community