City of Seattle

2005 Home Organics Waste Management Survey

Prepared by

FBK Research

in association with

Seattle Public Utilities

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I. Overview

Introduction

For nearly 20 years, Seattle Public Utilities (SPU) has supported an array of organics waste management services and programs. The programs are designed to help residents reduce and manage their yard debris and food wastes. SPU not only offers residents voluntary curbside collection services for yard debris, vegetative food waste, and compostable paper, but also provides residents with education, tools and incentives for managing organic wastes effectively in their own backyards. These efforts support SPU's overall goals for solid waste management.

This study is a continuation of research first conducted in 1995 and subsequently conducted in 2000 and 2005. The primary purpose is to evaluate Seattle residents' attitudes, awareness and behaviors towards the various City-sponsored organic waste management programs. The 1995 survey was designed to investigate the variety of organic waste management activities practiced by City residents, and identify ways to improve SPU services. A focus of the second survey was to investigate residents' attitudes and practices toward grasscycling. The survey described in this report was designed to investigate the entire range of organic waste management practices, including participation in curbside organic pick-up services, backyard yard and food waste composting and grasscycling.

The survey was fielded in December 2005. The survey sampled 600 Seattle residents living in buildings with four or fewer units. The sample size provides 95% confidence that the results will be within plus or minus 4.1% of what they would be if all Seattle residents in the targeted audience had been interviewed.

SPU Programs and Services

The programs and services SPU supports for organic waste management have evolved since 1986 when the first group of Master Composters was trained to provide residents with education on the benefits of backyard yard waste composting. The core elements of the current program are:

> ***Distribution of Bins for Composting Yard and Food Waste at Home*** *make it possible for residents to purchase a yard waste or food waste compost bin at a subsidized price.* Bin distribution has changed since the program began in 1990. For the first four years SPU offered residents yard waste composting bin delivery and educational services at no charge, and in the third year began distributing food waste composting bins. In 1994 SPU began to charge a subsidized fee for both yard and food waste bins and required that residents pick up a bin and receive education at a central location. In 1998 residents were provided an opportunity to purchase a yard waste composting bin at a "truck load" sale. These once-a-year truck load sales took the Utility out of the "warehouse" business and residents were no longer required to

receive education in order to purchase a compost bin.[1] By the end of 1999 approximately 28% of Seattle households (44,300) had received a yard waste compost bin and 5% (8,600) had received a food waste compost bin from the City. Since 1999, an additional 9,751 yard waste composting bins and 6,045 food waste composting bins (worm bins and green cones) have been sold. Responses from the 2005 survey indicate that a high percentage of these bins are currently in use.

The Natural Lawn and Garden Hotline (*formerly known as the Compost hotline)* ***and Composting Information at Seattle.gov*** *provide residents with information about composting and answers to their composting questions throughout the year.* In the period from 2000 through 2005, the hotline, a joint project with King County and Seattle Tilth, fielded an average of 6,520 calls a year and answered an average of 9,750 questions yearly.

Northwest Natural Yard Days *promotions at local retail outlets encourage residents of King County and surrounding areas to purchase environmentally preferable yard care products and to practice natural yard care.* According to the 2005 survey, 17% of residents with yards are aware of this program and 12% (approximately 19,000) have received information or made use of the discounts that the program offers. A feature of the promotion is a significant discount on a mulching mower. About 1.5% of those surveyed report that they have taken advantage of this opportunity, which implies that about 2,300 households have purchased mulching mowers using the discount.

Master Composter *volunteer program educates residents to educate others.* Over 583 resident volunteers have been trained since 1986 (183 since 2000); these volunteers provide over 1,150 hours of volunteer outreach each year. According to the 2005 survey, 30% (approximately 48,000) of residents with yards have heard of the master composters.

Curbside collection *of yard debris, vegetative food waste and compostable paper is offered to residents as an optional service*. In 1989, the Solid Waste Utility (SPU's forerunner) began the curbside yard waste collection program and participation quickly rose to over 60%. Participation declined slightly in the 1990s, to a level of 54% in 1999. Today approximately 63% of eligible Seattle households participate. Beginning in 2005 curbside customers were allowed to include most kinds of food waste and compostable paper in their curbside collection bin. Of the residents surveyed in December 2005, 49% say that they use this service, and 26% report that they use it for most or all of their food waste. Residents can participate in both the curbside collection and backyard composting programs. Residents are not permitted to dispose yard waste in their household garbage.

[1] Prior to 1998, SPU purchased bins in bulk directly from a manufacturer and stored them in a warehouse. In 1996 SPU purchased the manufacturer's remaining inventory of Green Cones, a food waste composting bin, and the last of these bins were distributed in 1998.

City of Seattle waste composition studies suggest that SPU's multi-pronged approach to organic waste management has been effective. A 1988/89 report indicates that yard waste (leaves, grass and prunings) comprised 19.2% of Seattle's single-family residential waste stream[2]. By 1990, that number dropped significantly to 2.2% (due to a disposal ban on yard waste and the introduction of curbside yard waste collection services). The 1998/99 and 2002 waste composition studies report that yard waste accounted for approximately 2% of the single-family waste stream.

Comparison with 1995 and 2000 Organics Surveys

As shown in the table below, the survey indicates that most home composting activities have decreased in the last five years, returning to levels found in the 1995 survey. The recent decrease coincides with a steady increase in those reporting that they use curbside organics collection for some of their yard waste.

Table 1: General Trends in Organics Activities

Question	1995 (n = 610)	2000 (n = 600)	2005 (n = 600)
Does your household currently compost any of its yard waste at home on your own property?	41%	46%	40%
Does your household compost any of its food waste – that is kitchen scraps left over from cooking or eating – at home?	25%	31%	26%
Does your household ever leave grass clippings on the lawn when it's mowed?	46%	55%	57%
When you mow your lawn or have your lawn mowed, what is typically done with the clippings – are they left on the lawn?	15%	38%	36%
Does your household ever put its yard waste out at the curb or alley for collection?	59%	76%	82%
Do you ever put your food waste in your yard waste container and take them to the curb or alley for pick-up	N/A	N/A	49%

The survey indicates that the expansion of the curbside yard waste collection to include vegetative food waste and compostable paper played a role in the decline of backyard food composting activities. Of those who place some food waste in the yard waste bins, 3% reported that they composted food waste in the their backyard before the service was available and now no longer engage in backyard food waste composting. An additional 5% said that the amount of food waste they compost in their backyard has decreased since they began participating in the curbside collection program.

The response to the last question in Table 1 is in apparent contradiction with the actual curbside subscription rate, which was 63% of eligible households at the end of 2005. A similar disparity exists between the response rate in the 2000 survey and subscription rate from that time (58%). There are several possible explanations for this inconsistency, the four most likely being:

[2] For purposes of waste stream analysis, single-family households are those that use a garbage can (as opposed to a dumpster) for their waste collection service. This group is almost equivalent to those that live in structures of one to four units.

1) Respondents do not subscribe but make use of a neighbor's organics collection bin for their yard waste;
2) Some respondents may have set out yard waste in the past, but are not currently subscribed to the service;
3) Respondents may have interpreted the question as asking whether they put yard waste out for collection with their garbage; and
4) The survey sample could be biased in favor of those who subscribe to yard waste pick-up.

The argument for explanation 4 is that residents who participate in organics recycling activities are more likely to be willing to devote fifteen to twenty minutes to a survey concerning these practices. As seen in Table 8 single-family residents and homeowners are disproportionally represented in the survey. It is reasonable to assume that these characteristics are correlated with organics recycling activities.

Current and Future Markets

Tables 2 and 3, *Seattle Residents' Year 2005 Organic Waste Management*, combine data collected from the 2005 Organics Survey with information gathered from other SPU sponsored research on waste and organics. The table separates information on yard and food waste to examine the market conditions and market potential for each waste stream.

The "Current Market" portion of the table applies survey percentages for specific activities to the total number of eligible Seattle households (152,600[3]). The "Future Market" section synthesizes information from the survey and current population estimates to present optimistic scenarios for programs in terms of participation and diversion amounts.

[3] The number of eligible Seattle households is derived from data provided by the Puget Sound Regional Council (PSRC), which is based on census data. The figure is consistent with figures used for garbage and recycling modeling done by the utility.

Table 2: Seattle Residents' Year 2005 Organic Waste Management: Yard Waste

	Current Market		Future Market				
	Participating HHs	Diversion (Tons)	Eligible HHs Not Participating	Likely Market (HHs)	Diversion (Tons)	Potential Market (HHs)	Diversion (Tons)
Home Composting	60,500 (40%)	9,400	89,300 (58%)	18,100 (12%)	2,800	23,200 (15%)	3,600
Grasscycling	54,700 (36%)	9,600	78,400 (51%)	41,500 (27%)	7,300	11,200 (7%)	2,000
Curbside – Single Family	98,500 (63%)	36,300					
Curbside – Multi-family		800					
Clean Green Drop-off (Self-haul Yard Waste)		13,900					
Disposed of as Garbage		3,700					
Total		73,600					

Data sources used in the calculations for Table 2 include survey responses, solid waste and yard waste reports, waste composition studies, and studies of composting behaviors and efficiencies. For a detailed explanation of the estimates, see Attachment I to this Section.

Current and future market percentages are relative to all Seattle single family households. In the Home Composting row of the table, the total of participating and eligible non-participating households does not equal 100% because of ineligible households that do not have yards and do not produce yard waste. Two percent of single families surveyed comprise this ineligible group (Table 9). Likewise, 13% of single-family households do not have lawns so are considered ineligible for grasscycling.

Future market estimates follow the method of the 2000 survey. The likely market estimates are based on those respondents who said that they would be "extremely" or "very" likely to begin the activity in the next year if they were given information on how to make it easy and pest free. Similarly, the potential market estimates are based on those who said they were "somewhat" likely to participate. The survey questions used for the home composting (A15) and grasscycling (A21) future market estimates can be found in Appendix 2. Respondents were also asked about the likelihood that they would purchase a compost bin or mulching mower in the next year. Results are described in Sections III and IV of this report.

Future market estimates are optimistic, based on respondents stated intentions to take up the activities in the following year. In Sections III and IV the future market estimates in this and the following table are scaled back to account for the fact that people do not always follow through on their intentions.

Table 3: Seattle Residents' Year 2005 Organic Waste Management: Vegetative Food Waste & Compostable Paper

	Current Market		Future Market				
	Participating HHs	Yearly Diversion (Tons)	Eligible HHs Not Participating	Likely Market (HHs)	Diversion (Tons)	Potential Market (HHs)	Diversion (Tons)
Home Composting of Food Waste (any method)	39,700 (26%)	4,700	113,000 (74%)	10,700 (7%)	1,300	17,000 (11%)	2,000
Curbside (Includes Compostable Paper)	75,000 (49%)	5,500	77,500 (51%)	22,900 (15%)	3,300	20,100 (13%)	2,900
Grinder	75,000 (49%)	7,300					
Disposed of as Garbage		28,800					
Total		46,300					

Data sources used in the calculations for Table 3 include survey responses, solid waste and yard waste reports, waste composition studies, and studies of composting behaviors and efficiencies. For a detailed explanation of the estimates, see Attachment II to this Section.

The curbside collection of vegetative food waste and compostable paper program began in March of 2005 and was not fully implemented until September. Projected to a full year of participation, the estimated yearly diversion rate is 10,800 tons.

The same methods used to derive future market estimates for yard waste in Table 2 above were also used to estimate home composting and curbside pick-up of vegetative food waste and compostable paper. The survey questions used for the food waste and compostable paper (B25 and B30) and curbside collection of food waste (B17 and B20) future market estimates can be found in Appendix 2.

Key Findings

Seattle residents have multiple options for handling their yard and food waste, including home composting, curbside organics collection, drop-off at the City's transfer stations, and curbside garbage collection. The 2005 Home Organics Survey combined with earlier surveys presents a picture of what choices are made and what influence the utility might have on those choices.

Almost all single-family households have yards.
Of the 98% of respondents who say they have a yard, 87% report that they have a lawn and 76% report that they have a garden. These percentages are very close to those from the 2000 survey. Most householders play an active role in caring for their yards

Home composting activities have declined as curbside collection has increased.
As documented in Table 1 above, the percentages of residents who say they compost any of their yard waste or food waste at home or who grasscycle have declined by 4 to 6 percent since the 2000 survey, while the subscription rate for curbside organics pickup service has increased. The most dramatic decrease has been among the group that says they compost all of their yard waste at home. The percentage of respondents who say they compost all of their yard waste at home has decreased by 50% since 1995, while the percentage that say they take all of their yard waste to the curb has increased by a similar percentage (see Table 13). The addition of food waste to the curbside organics collection service appears to have had a small negative affect on home composting of food waste.

"Likely" markets for home composting remain robust, although questions exist.
As in the 2000 survey, significant numbers of residents say they would be highly likely to undertake home composting if they received information on how to make these activities "easy and pest free". As summarized in the future markets section of tables 2 and 3 above, this represents a large potential market for diversion of organics from the waste stream. However, Resource Conservation staff point out that some residents may not consider home composting "easy" – it takes time and effort – and home composting of food waste sometimes requires dealing with a variety of insect pests. How, or whether, the consistently stated interest in composting by non-composters can be translated into an increase in composting activities is an open question.

City-Supplied composting bins play a significant role in Seattleites composting.
Almost half of the yard waste and food waste bins currently in use were provided by the City, either free of charge (in the early years of the program) or at a discount. A small percentage of respondents considered themselves likely to purchase a bin in the next year.

ATTACHMENT I
YARD WASTE ASSUMPTIONS AND DATA SOURCES

Composting

Current Market

Participating Households

The 2005 survey indicates that approximately 40% (or 70,500) of the 152,600 single-family households in Seattle compost some of their yard waste at home on their property (Table 11). The 152,600 total households is a SPU estimate based on the most recent census, estimates from the Puget Sound Regional Council, and garbage subscription data. The same estimate is used in other modeling and analysis of solid waste, recycling and organics activities.

Diversion

Pounds per Household: Single-family households with yards generate an estimated 607 pounds of leaves and grass per year. The total generation of yard waste from these households is estimated by summing the yard waste from the curbside yard waste collection program (single-family only), estimated yard waste from single-family households dropped off at City transfer stations, estimated yard waste disposed of as waste (using the 2002 Residential Waste Stream Composition Study and the 2004 Self-haul Waste Stream Composition Study), and the estimated amount diverted through both grasscycling and backyard composting (a preliminary estimate based on 2005 survey responses and the 2000 Home Organics Survey Report). This sum is divided by the total number of households, resulting in an estimate of 878 pounds of yard waste generated per household per year. The portion that is leaves and grass is estimated using data from a 1988/90 waste stream composition study that was completed before the curbside yard waste program was implemented. That study indicates that 75% of yard waste collected in the curbside garbage was leaves and grass. However, only 35% of self-haul auto yard waste was leaves and grass and only 30% of truck self-haul was leaves and grass. The remainder of the yard waste is assumed to be brush and prunings that cannot be composted in backyard bins. The weighted average is 69%, or 607 pounds of leaves and grass out of a total of 878 pounds of yard waste per household.

As a first step in estimating the number of tons of yard waste diverted from the waste stream by home composting activities, participating households are divided into 4 groups based on whether they use a city-supplied bin and whether they grasscycle. The distribution of home composters with respect to these characteristics is shown in the table below:

Table 4. Categories Used for the Yard Waste Composting Diversion Calculation
Population – Households Composting Yard Waste at Home

		City Supplied Bin		
		Yes	No	Total
Grasscycling	Yes	20%	21%	42%
	No	26%	32%	58%
Total		46%	54%	100%

A unique measure of diversion (pounds of yard waste composted per year) is used for each of these four types of households.

For households that use a city-supplied bin to compost and do not grasscycle, a 70% efficiency rate is assumed. This means that on average these households compost 70% (or 425 pounds per year) of the available 607 pounds of leaves and grass. Households that do not use a city-supplied bin to compost and do not grasscycle are assumed to have a 60% efficiency rate (or 364 pounds per year).

Since grasscycling occurs upstream of backyard composting, less grass is available for composting to those households that both grasscycle and compost. A study of yard waste collection patterns found that 28% of the 607 pounds, or 170 pounds, of yard waste is leaves and 72%, or 437 pounds, is grass. The estimate assumes that these grasscycling households grasscycle 80% of their grass, with the rest available for composting. The result is an estimate of 257 pounds per year of yard waste available for backyard composting by households that both grasscycle and compost. Applying the same efficiency rates that were used for the non-grasscylcers – 70% for those that use a City-supplied bin and 60% for others – results in composting estimates of 206 pounds per year for those that use a City-supplied bin and 189 pounds for those that do not use a City-supplied bin.

These assumptions and calculations yield an estimated 9,400 tons that is diverted through backyard composting. The full calculation is:

City bin/no grasscycle:	0.40*152,600*.26*425/2000 = 3,352 tons
No City bin/no grasscycle:	0.40*152,600*.32*364/2000 = 3,569 tons
City bin/grasscycle:	0.40*152,600*.20*206/2000 = 1,261 tons
No City bin/grasscycle:	0.40*152,600*.21*189/2000 = 1,229 tons

Future Market

Of the 152,600 single-family households in Seattle, 98% are considered to be eligible composting households because they have a lawn and/or garden (Table 9). Of these 149,800 eligible households, an estimated 89,300 (58% of all single-family households) do not participate in any type of yard waste composting (Tables 9 and 11). Twenty-one percent of these non-participating households (12% of all respondents) reported that they were either "extremely" or "very likely" to participate in composting in the future (Table 24). This 12% constitutes a likely market for future composting. Respondents that indicated they were "somewhat likely" to compost in the future (27% of non-composters, 15% of the sample as a whole) inform the estimate for the potential market. The per household diversion for the likely and potential market was assumed to be equal to the per household rate for households that are currently composting. This is a weighted average of the composting estimates derived above for the different composter categories and comes to 311 pounds per year.

Grasscycling

Current Market

The 2005 survey indicates that 36% (or 54,700) of the 152,600 single-family households in Seattle typically grasscycle, i.e. they leave their grass clippings on their lawns (Table 16).

Diversion

As explained in the previous section, single-family households generate an estimated 878 pounds of yard waste each year, 607 pounds of which are leaves and grass and 437 pounds, or 72%, are grass. An 80% efficiency rate is assumed, resulting in an estimate of 350 pounds of grass diverted per year per grasscycling household. Thus, the total tons grasscycled are estimated to be:

Grasscycling Diversion = 0.36*152,600*350/2000 = 9,614 tons per year.

Future Market

Of the 152,600 single-family households in Seattle, 87% have lawns (Table 9) so they are considered to be eligible for grasscycling. Of these 133,100 eligible households, 55% or 78,400 (51% of all single-family households) do not typically grasscycle (Tables 9 and 16). The likely market is comprised of those households that reported that they "ever grasscycle" (Table 18) plus those that are mowing their lawn but not currently grasscycling and that reported that they were "extremely' or "very likely" to grasscycle in the future (Table 27). Those households that indicated they were "somewhat likely" to grasscycle in the future (Table 27) are the potential market. Diversion estimates for these future households are based on an average diversion rate of 350 pounds per household per year (80% of 437 pounds of grass).

Curbside Pick-Up

Current Market

Participating households and annual diversion is from the December 2005 Yard Waste Report.

Self-Haul to Transfer Station

Current Market

Annual diversion is from the December 2005 Yard Waste Report.

Disposal in Garbage

Current Market

Annual disposal includes both commercially collected and self-hauled waste from single-family residences. Quantities are estimated by applying percentages from the waste composition studies to figures from the 2005 Garbage Report. Waste composition studies consulted are the 2002 Seattle Waste Composition Study (for commercially collected residential waste) and the 2004 Seattle Waste Composition Study (for self-haul waste[4]).

[4] For self-haul waste analysis, 100% of waste from cars and 50% of waste from trucks was assumed to come from the sample population, i.e. from homes in structures of 1 to 4 units.

ATTACHMENT II
FOOD WASTE AND COMPOSTABLE PAPER ASSUMPTIONS AND DATA SOURCES

Composting

Current Market

Participating Households

The 2005 survey indicates that 26% (or 39,700) of the 152,600 single-family households in Seattle compost food waste at home (Table 11).

Diversion

Pounds per Household: Seattle single-family households produce an estimated 515 pounds of food waste per year on average. This estimate is based on results from the 2002 Residential Waste Stream Composition Study, the 2004 Garbage Report, and a study of moisture absorption by paper from food waste in the waste stream.

Households: For purposes of the estimate, the composting households are broken into three categories as shown in the table below:

Table 5. Categories Used in the Home Composting of Food Waste Diversion Calculation

Household Category Description	% of All Households	% of Households Composting Food Waste	Efficiency Factor
Composting is Only Method of Disposing of Food Waste	4.5%	17%	90%
Composting is Primary Method of Disposing of Food Waste	10.5%	40%	50%
Composting is not the Primary Method of Disposing of Food Waste	11.0%	42%	20%
Total	26.0%	100%	

Data in the table was used to estimate diverted food waste in each category according to the following formula:

Diversion of Food Waste from Home Composting

= (Total # of households)*(Percentage of households in the category)*(Estimated lbs of food waste per household)*(efficiency factor) [one term for each category]

= (152,600*.045*515*.90 + 152,600*.105*515*.50 + 152,600*.11*515*.20)/2000

= appr. 4,700 tons

Experience has shown that respondents tend to over-estimate their effectiveness in practicing behaviors that are seen as positive and beneficial. To compensate for this tendency efficiency factors were assigned conservatively – e.g. 90% instead of 100% for households who reported that compost was their only method of food waste.

Future Market

All single-family households in Seattle are considered to be eligible for food waste composting. Seventy-four percent of these households reported that they are not currently composting food waste, an estimated 113,000 households (table 11). The likely market is comprised of these non participating households that reported that they were "extremely" or "very likely" to compost food waste in the future. Those households that indicated they were "somewhat likely" to compost food in the future are the potential market. The per household diversion for the likely and potential market was assumed to be equal to the per household rate for households that are currently composting. This is a weighted average of the composting estimates derived above for the different composter categories and comes to 227 pounds per year.

Curbside Pick-Up

Current Market

Participating Households

The 2005 survey indicates that 49% (or 75,000) of the 152,600 single-family households in Seattle use curbside organics collection to dispose of at least some of their food waste and compostable paper (Table 11).

Diversion

Pounds per Household: Seattle single-family households produce an estimated 515 pounds of food waste per year on average. This estimate is based on results from the 2002 Residential Waste Stream Composition Study, the 2004 Garbage Report, and a study of moisture absorption by paper from food waste in the waste stream. Similar calculations result in an estimate of 95 pounds of compostable paper generated per household per year on average.

Households: For purposes of the estimate participating households are broken into three categories as shown in the table below:

Table 6. Categories Used for the Curbside Organics Collection Diversion Calculation

Household Category Description	% of All Households	% of Households Composting Food Waste	Efficiency Factor
Curbside Collection is Only Method of Disposing of Food Waste	9.2%	19%	90%
Curbside Collection is Primary Method of Disposing of Food Waste	15.3%	31%	50%
Curbside Collection is not the Primary Method of Disposing of Food Waste	24.7%	50%	25%
Total	49.2%	100%	

Data in the table was used to estimate annual diverted food waste and compostable paper in each category according to the following formula:

Diversion of Food Waste from Home Composting

= (Total # of households)*(Percentage of households in the category)*(Estimated lbs of food waste and compostable paper per household)*(efficiency factor) [one term for each category]

= (152,600*.092*610*.90 + 152,600*.153*610*.50 + 152,600*.247*610*.25)/2000

= appr. 10,300 tons

Curbside collection was phased in during 2005, with the average home receiving 6.4 months of service. Adjusting the annualized estimate accordingly results in a 2005 diversion estimate of 5,500 tons.

Future Market

All single-family households in Seattle are considered to be eligible for curbside collection of vegetative food waste and compostable paper as part of the organics collection service. Fifty-one percent of these households reported that they are not currently using the curbside organics collection service for their vegetative food waste and compostable paper, an estimated 77,500 households (table 11). The likely market is comprised of these non participating households that reported that they were "extremely likely" or "very likely" to use the service within the next year. Those households that indicated they were "somewhat likely" to compost food in the future are the potential market. The per household diversion for the likely and potential market was assumed to be equal to the per household rate for households that ever put food waste in their yard waste container and take it to the curb or alley for pick-up. This is a weighted average of the estimates derived above for the different curbside categories and comes to 296 pounds per year.

Grinder Disposal

Participating Households

The 2005 survey indicates that 49% (or 75,000) of the 152,600 single-family households in Seattle use a garbage disposal to dispose of at least some of their food waste and (Question B1B).

Diversion

Pounds per Household: Seattle single-family households produce an estimated 515 pounds of food waste per year on average. This estimate is based on results from the 2002 Residential Waste Stream Composition Study, the 2004 Garbage Report, and a study of moisture absorption by paper from food waste in the waste stream.

Households: For purposes of the estimate participating households are broken into three categories:

Table 7. Categories Used for the Grinder Diversion Calculation

Household Description	% of All Households	% of Households Composting Food Waste	Efficiency Factor
The Garbage Disposal is Only Method of Disposing of Food Waste	4.7%	9%	95%
The Garbage Disposal is Primary Method of Disposing of Food Waste	13.2%	27%	60%
The Garbage Disposal is not the Primary Method of Disposing of Food Waste	31.3%	64%	20%
Total	49.2%	100%	

Data in the table was used to estimate annual diverted food waste paper in each category according to the following formula:

Diversion of Food Waste from Grinder Use

= (Total # of households)*(Percentage of households in the category)*(Estimated lbs of food waste and compostable paper per household)*(efficiency factor) [one term for each category]

= (152,600*.047*515*.95 + 152,600*.132*515*.60 + 152,600*.313*515*.20)/2000

= appr. 7,300 tons

Disposal in Garbage

Annual disposal includes both commercially collected and self-hauled waste from single-family residences. Quantities are estimated by applying percentages from the waste composition studies to figures from the 2004 Garbage Report and adjusting for estimated diversion from curbside recycling. Waste composition studies consulted are the 2002 Seattle Waste Composition Study (for commercially collected residential waste) and the 2004 Seattle Waste Composition Study (for self-haul waste). The first study estimated that approximately 36% of commercially collected waste from single family homes is food waste. The 2004 study estimated that approximately 3% of self-haul waste delivered to the transfer stations in trucks is food waste, and approximately 1% of the self-haul waste delivered to the transfer station in cars is food waste.

References

City of Seattle, 1995 HOME ORGANICS WASTE MANAGEMENT SURVEY**,** prepared by Cascadia Consulting Group, Inc., March 1996

City of Seattle, 2000 HOME ORGANICS WASTE MANAGEMENT SURVEY**,** prepared by Cascadia Consulting Group, Inc. in association with FBK Research, September 2000

City of Seattle, Department of Engineering, Solid Waste Utility, WASTE STREAM COMPOSITION STUDY 1988-1989, prepared by: The Matrix Management Group, June 1989

Seattle Public Utilities, RESIDENTIAL WASTE STREAM COMPOSITION STUDY 2002, prepared by Cascadia Consulting Group, August 2003

Seattle Public Utilities, COMMERCIAL AND SELF-HAUL WASTE STREAMS COMPOSITION STUDY 2004 prepared by Cascadia Consulting Group, September 2005

GARBAGE REPORT 2004 prepared by Seattle Public Utilities, Resource Planning Division, Forecasting and Evaluation Section, February 2005

Note: all of these reports with the exception of the 1988-1989 Waste Stream Composition study can be found at:

http://www.seattle.gov/util/About_SPU/Garbage_System/Reports/index.asp

II. Research Design

Objectives

Seattle Public Utilities has commissioned this quantitative research to determine the level at which Seattle city residents are currently participating in organic waste management activities—that is, utilization of curbside pick-up services, home composting of yard waste and food waste, and grasscycling.

The specific objectives of this research were as follows:

- To examine the extent to which Seattle residents are involved in organic waste management activities, including:
    - The types of waste management activities in which they currently engage;
    - Awareness and usage of City-sponsored programs; and,
    - Interest in increased participation of organic waste management activities.
- To examine the attitudes and behaviors of Seattle residents who are not involved in organic waste management activities, including:
    - Awareness of and interest in composting;
    - Primary reasons for not composting or grasscycling;
    - Awareness of and interest in City-sponsored programs; and,
    - Likelihood of participating in organic waste management activities.

Methodology

Target Population: To qualify for inclusion in this study, all respondents were screened to be 18 years of age or older and living within the city limits of Seattle. Only those living in buildings with four or fewer units were considered eligible. This sample "universe" consists of approximately 60% of all Seattle households.

Technique: Informa Research Services of Seattle, Washington conducted 600 telephone interviews. All telephone interviews were conducted by trained, professional survey-takers under the guidance of experienced supervisors. Interviewers were thoroughly briefed on the goals and objectives of the study and they were coached and monitored throughout data collection.

Field Dates: Telephone interviews were conducted between November 30 and December 27, 2005, and telephone calls were placed from 4:00 p.m. to 9:00 p.m.

Questionnaire: FBK Research designed the questionnaire in conjunction with Seattle Public Utilities. The instrument was pilot tested to ensure that the questions included would provide valid and reliable results. The initial pilot test pointed to certain areas within the questionnaire that seemed to confuse respondents. Modifications were made and two subsequent pilot tests were conducted. After the third pilot test, the instrument was solid and approved for fielding. The survey averaged 15 minutes. (See Appendix 2 for a copy of the survey instrument.)

Sample: The sample for this survey was purchased from Survey Sampling and included a random selection of all working residential exchanges within the City of Seattle, recent to the previous six months. The sample was selected in proportion to the population within each Seattle zip code area. (See Appendix 1 for the disposition of the sample.)

Sample Profile

When interpreting the findings from this survey, it is important to keep in mind the characteristics of the people interviewed. The following table presents a profile of the 600 Seattleites living in buildings with four or fewer units who were included in the survey. Here, as well as throughout this report, percentages may not sum to 100 because of rounding, because of the acceptance of multiple responses and/or because of the exclusion of answers with very low frequencies.

For comparison purposes, Table 8 on the following page presents information obtained from the 1995 and 2000 Seattle Organics Surveys and information from the 2000 Census. The Census data is for Seattle householders living in structures of 1 unit, 1 unit attached, 2, 3 and 4 units. Data for this subgroup is available only for selected characteristics.

Table 8: Demographic Data

		Dec. 2005 *(600)*	Jan. 2000 *(600)*	Jan. 1995 *(610)*	Census 2000
Gender:	Male	42%	42%	39%	
	Female	58%	58%	61%	
Age:	18 to 24 years	1%	6%	8%	3%
	25 to 34 years	13%	20%	24%	20%
	35 to 44 years	26%	28%	23%	23%
	45 to 54 years	23%	21%	16%	23%
	55 to 64 years	20%	12%	9%	12%
	65 years or older	16%	12%	17%	18%
Ethnicity:[5]	Caucasian	79%	84%	71%	78%
	African-American	3%	4%	6%	7%
	Asian	4%	5%	10%	10%
	Hispanic/Latino	1%	1%	3%	3%
	Native America	1%	1%	3%	1%
	Other (mixed)	4%	2%	2%	4%
	Don't know/Refused	9%	5%	6%	
Dwelling Type:	Single-Unit	94%	91%	84%	83%
	Multi-Unit	6%	9%	16%	17%
Ownership:	Own	86%	77%	71%	71%
	Rent	12%	21%	28%	29%
Number in Household:	One	16%	16%	17%	
	Two	44%	43%	36%	
	Three	17%	18%	21%	
	Four	17%	15%	15%	
	Five or more	5%	7%	10%	
Education:	High School or less	8%	11%	19%	
	Some college	22%	24%	26%	
	4-year college	31%	39%	28%	
	Graduate work	36%	25%	23%	
Income:	Under $30,000	7%	10%	NA	
	$30,000 - $50,000	13%	21%	NA	
	$50,000 - $75,000	15%	24%	NA	
	$75,000 - $100,000	20%	15%	NA	
	$100,000 or more	25%	15%	NA	
	Don't know/Refused	21%	15%	9%	

[5] The Census has a category for race, which includes the groups listed in Table 3 with the exception of the Hispanic/Latino group. The Hispanic/Latino category is considered an ethnic, as opposed to racial, identifier and is tracked in addition to race. For this reason the Census percentages in the ethnicity section of Table 3 exceed 100%

Table 8 shows that over the course of the three surveys, the sample populations have fewer young respondents, and have increasing percentages of homeowners, Caucasians, and inhabitants of single unit structures. In these categories the 2005 sample population shows a significant variance with the 2000 Census. It is unlikely – particularly in the ethnicity and dwelling type categories – that the population has changed since 2000 in the way indicated by the sample demographic changes. There are several possible explanations for the variance:

- The increasing popularity of cell phones, particularly among younger residents, has resulted in less use of residential phone numbers and made cell phone users less accessible to a phone survey.
- A general decrease in tolerance for phone solicitation has increased refusal rates, resulting in a kind of "advocate bias" in which the people willing to take the time to participate in the survey are those that have a particular interest in the topic of the survey. It is reasonable to expect that this kind of bias would favor homeowners over renters and single unit residents over residents of multi-unit structures because the single-family homeowner is more likely to be invested in his or her lawn and garden.
- Under-representation of non-Caucasian residents has plagued several surveys in recent years. In 1995, specific quotas were set for ethnicity based on census information. No quotas were set for the 2000 or 2005 surveys.

Household Characteristics

Yard waste composting necessitates having a yard—a lawn, a garden or both—and grasscycling necessitates having a grass lawn. Respondents in this research were asked to provide information about their households and yards to determine the extent to which they had the need to compost yard waste and to grasscycle. Table 9 below shows the information for the current and previous surveys.

Table 9: Household Characteristics

Base:		Dec. 2005 (600)	Jan. 2000 (600)	Jan. 1995 (610)
Yard:	Yes	98%	96%	95%
	No	2%	4%	5%
Lawns:	Yes	87%	88%	85%
	No	13%	12%	15%
Ever Care for Yard:[6]	Yes	96%	94%	79%
	No	4%	6%	21%
Have a Garden:	Yes	74%	71%	57%
	No	26%	29%	43%
Garden Type:	Food	37%	37%	35%
	Flower	63%	63%	51%
	Other	13%	8%	1%
	None	26%	29%	43%

[6] A change in questionnaire wording makes it difficult to compare directly over time the percent that "ever" care for their yard. All evidence suggests that an extremely high percentage continue to take responsibility for at least some of their yard care.

While there were some changes between 1995 and 2000 in the percentage of residents who reported caring for their yard and having a garden, these and other characteristics reported above have remained very stable since 2000.

- The vast majority (98%) report that they have a yard—a percent that is not significantly different from 2000 (96%).

- Seven out of eight (87%) report that they have a lawn—the same percent that reported having a lawn in 2000.

- Three out of four (74%) report having a garden—a percent similar to that reported by respondents in 2000 (71%).

Survey Limitations

A random sample of size 600 is sufficient to provide 95% confidence that the resulting data will be within plus or minus 4.1% of what it would be if all Seattleites living in one to four unit buildings were interviewed. That is, in theory, had all people in the target population been interviewed, there is a 95% chance the results would be within plus or minus 4.1% of the results obtained from this sample. This error range is calculated at the 50%-50% response rate to any two-part questions (e.g., 50% "yes" and 50% "no") and is therefore the maximum error range that can be expected from a sample this size.

This report addresses results from several specific subgroups. The following table presents some of these subgroups, the number of interviews conducted and the associated error range.

Table 10: Survey Subgroups

Subgroup	Number of Interviews	Associated Error Range
Total Sample	600	+/- 4.1%
Yard Waste Composters	238	+/- 6.5%
Food Waste Composters	156	+/- 8.0%
Grasscyclers	342	+/- 5.4%
Yard Waste Only Composters	94	+/- 10.3%
Food Waste Only Composters	12	+/- 28.9%
Compost Both Yard and Food Waste	144	+/- 8.3%
Compost Neither Yard nor Food Waste	350	+/- 5.3%

This sample excluded any household in which there is no hardwired telephone or any household in which there is only a mobile telephone number. This sample also excluded any household with a telephone exchange newly issued within six months prior to the purchase of the sample.

The data presented in this report provides a reliable and valid picture of Seattleites' attitudes and behaviors with regard to organic waste management activities. This data is useful when assessing the size of the current market and the future market for program enhancement and expansion. However, it must be kept in mind that this survey cannot predict the future. While great care and the most advanced methods were employed in the design, execution and analysis of this study, these results should be interpreted only as representing the view of these respondents at the time they were interviewed.

III. Current Market: Detailed Findings

Characteristics of the Market

Among the 600 Seattle residents interviewed, about two out of every five (42%) are currently composting yard and/or food waste[7] and 58% are doing neither.

- 94 (16%) currently compost yard waste but not food waste (referred to as "yard waste only composters" in this report);
- 12 (2%) currently compost food waste but not yard waste (referred to as "food waste only composters" in this report);
- 144 (24%) currently compost both yard and food waste (referred to as "yard and food waste composters" in this report); and,
- 350 (58%) currently do not compost either yard or food waste (referred to as "non-composters" in this report).

Together,

- 238 (40%) currently compost yard waste (and may or may not compost food waste); and,
- 156 (26%) currently compost food waste (and may or may not compost yard waste).

The following table compares this information to similar information collected in 2000 and 1995:

Table 11: Current Composting Behavior

Base: Total Sample	December 2005 *(600)*	January 2000 *(600)*	January 1995 *(610)*
Yard Waste Only	16%	19%	19%
Food Waste Only	2%	4%	3%
Both Yard and Food Waste	24%	27%	22%
Neither Yard nor Food Waste	58%	50%	57%
Total Yard Waste	40%	46%	41%
Total Food Waste	26%	31%	25%

The percent of households that reported composting yard and/or food waste in 2005 is very similar to the percentage of households reporting that they composted yard and/or food waste 10 years ago. The slight increases in composting behaviors experienced in 2000 have not been maintained.

[7] For the purposes of this survey "compost" means to create organic material from yard and or food waste at home on the resident's property. Many residents consider composting to include setting out their yard waste for collection, and for this reason survey questions specified at home/on-property composting.

The table below provides information about the demographic characteristics of those who currently compost yard waste, those who currently compost food waste, and those who compost neither. For comparison purposes, the percentages for the total sample are shown parenthetically. For example, the percentages in the Food Waste column and female row indicate that 60% of all food waste composters surveyed are female, and 27% of the females surveyed compost their food waste.

When looking at the characteristics of those who compost, the following highlights emerge:

- Men and women are equally likely to compost yard waste and food waste. This is a change since 2000. Five years ago, women were more likely than men to be responsible for and/or take the initiative for composting food waste.

- Although the sample size is quite small, those who are under 25 years of age tend to report a greater propensity to compost both yard and food waste. Those who are 65 years of age or older tend to be less likely to compost yard waste but they are just as likely to compost food waste.

- Similar to 2000, those who live in single-family homes are more likely than their counterparts in larger dwellings to compost either yard or food waste.

- Although not a significant difference, only 20% of those living in households with four or more people currently compost food waste compared to 26% of the sample population.

Table 12: Profile of Composters

Base: (% of Sample)		Total Sample (600) (100%)	Yard Waste (238) (40%)	Food Waste (156) (26%)	Non-Composters (350) (58%)
Gender:	Male	42% (100%)	42% (39%)	40% (25%)	42% (58%)
	Female	58% (100%)	58% (40%)	60% (27%)	58% (58%)
Age:	Under 25	1% (100%)	2% (50%)	2% (38%)	1% (50%)
	25 – 34	13% (100%)	11% (32%)	12% (23%)	15% (65%)
	35 – 44	26% (100%)	25% (39%)	27% (27%)	25% (58%)
	45 – 54	23% (100%)	27% (47%)	26% (30%)	20% (51%)
	55 – 64	20% (100%)	22% (44%)	19% (25%)	19% (56%)
	65 years or older	16% (100%)	13% (32%)	13% (30%)	18% (67%)

Table 12: Profile of Composters (Continued)

Base: (% of Sample)		Total Sample (600) (100%)	Yard Waste (238) (40%)	Food Waste (156) (26%)	Non-Composters (350) (58%)
Ethnicity:	Caucasian	79% (100%)	81% (41%)	80% (26%)	77% (57%)
	Asian	4% (100%)	3% (33%)	4% (29%)	4% (58%)
	African American	3% (100%)	1% (17%)	1% (11%)	4% (83%)
	Latino/Hispanic	1% (100%)	1% (33%)	0% (0%)	1% (67%)
	American Indian	1% (100%)	<1% (25%)	1% (25%)	1% (75%)
	Mixed (Other)	4% (100%)	5% (48%)	4% (30%)	3% (52%)
Dwelling Type:	Single-unit	94% (100%)	95% (40%)	96% (27%)	94% (58%)
	Multiple-unit	6% (100%)	5% (32%)	4% (18%)	6% (65%)
Home Ownership:	Own	86% (100%)	86% (40%)	86% (26%)	86% (58%)
	Rent	12% (100%)	13% (43%)	13% (28%)	12% (57%)
Number in Household:	One	16% (100%)	13% (34%)	12% (20%)	18% (65%)
	Two	44% (100%)	45% (41%)	50% (30%)	43% (57%)
	Three	17% (100%)	21% (48%)	19% (29%)	15% (50%)
	Four	17% (100%)	16% (37%)	13% (21%)	18% (63%)
	Five or more	5% (100%)	4% (31%)	3% (17%)	5% (62%)
Education:	High school or less	8% (100%)	8% (38%)	7% (23%)	8% (60%)
	Some college / AA degree	22% (100%)	20% (36%)	20% (24%)	23% (63%)
	4-year college degree	31% (100%)	32% (40%)	30% (25%)	31% (58%)
	Graduate work/degree	36% (100%)	40% (44%)	41% (30%)	33% (53%)

Table 12: Profile of Composters (Continued)

		Total Sample	Yard Waste	Food Waste	Non-Composters
Base: (% of Sample)		(600) (100%)	(238) (40%)	(156) (26%)	(350) (58%)
Income:	Under $30,000	7% (100%)	7% (40%)	9% (33%)	7% (58%)
	$30,000 - $50,000	13% (100%)	11% (33%)	10% (20%)	14% (64%)
	$50,000 - $75,000	15% (100%)	17% (44%)	15% (26%)	14% (55%)
	$75,000 - $100,000	20% (100%)	25% (51%)	26% (34%)	16% (48%)
	$100,000 or more	25% (100%)	25% (40%)	24% (25%)	25% (58%)

Current Yard Waste Behavior

The following table summarizes the yard waste behavior of the total sample of 600 respondents, and compares this information to that collected in the 1995 and 2000 research. As depicted, the percent who say they do not have a yard, grass and/or garden has remained very consistent over time. A change in the questionnaire wording resulted in a smaller percent saying that they care for their yard in 2000; however, this percent has remained stable since then.

Compared to 1995, the percent reporting that they take all of their yard waste to the curbside for pick-up by the City has increased significantly. One-third (33%) of the Seattle residents interviewed in 1995 reported that they took all of their yard waste to the curbside and this percentage has increased to about one-half (49%) today.

The percent of Seattle residents who report that they compost all of their yard waste has decreased since 1995. While 15% reported that they composted all of their yard waste in 1995, only 7% reported the same in 2005.

Compared to 1995, the percentage of Seattle residents who neither compost nor use curbside yard waste pick-up services has decreased by one-half. In 1995, 13% reported that they used neither of these methods for their yard waste and only 6% reported that they used neither in 2000 and 2005.

Table 13: Comparison of Yard Waste Composting Activity, 1995 v. 2000 v. 2005

Base: Total Sample	December 2005 (600)	January 2000 (600)	January 1995 (610)
No yard, grass and/or garden	4%	4%	5%
Do not ever care for yard	0%	2%	8%
All yard waste taken to curbside	49%	43%	33%
Compost and use curbside	33%	33%	26%
All yard waste composted	7%	13%	15%
Neither compost nor use curbside	6%	6%	13%

The Eligible Yard Waste Composting Market

Between 1995 and 2000, changes in the wording and skip patterns contained in the questionnaire used to collect data made it impossible to compare answers about yard care across the five-year time period. To adjust for these questionnaire changes and make a comparison possible, calculations about disposal methods for yard waste were based on the "eligible market." Rather than including the entire sample, the eligible market includes only those people who have a yard or garden and who ever care for it themselves.

The following table summarizes the yard waste behavior of the eligible market, and compares this information to that learned in the 1995 and 2000 research.

Table 14: Comparison of Yard Waste Composters, 1995 v. 2000 v. 2005

Base: Eligible Market	December 2005 (574)	January 2000 (568)	January 1995 (527)
All yard waste taken to curbside	51%	45%	38%
Compost and use curbside	34%	35%	30%
All yard waste composted	8%	14%	17%
Neither compost nor use curbside	6%	6%	15%

Even when adjusted for better comparisons, the same situation is evident. The percent of Seattle residents who take all of their yard waste to the curbside for pick-up has steadily increased over time. Ten years ago, 38% of those who care for a yard said they disposed of all of their yard waste by taking it to the curbside and this percentage has increased to 51% today.

The percent who compost all of their yard waste has diminished over the years and is now about one-half of what it was in 1995 (from 17% in 1995 to 8% today). Only 6% of

Seattle residents in 2005 (and the same percentage in 2000) say that they neither compost nor use curbside—a percent that has decreased from 15% in 1995.

Those who compost at least some of their yard waste are more likely than their non-composting counterparts to have a food garden (either vegetables or fruits). Two-thirds (63%) of those who compost yard waste have a food garden compared to 38% of those who do not compost.

Curbside Service Usage

In total, 85% of those with a yard report that they ever put their yard waste out at the curb or alley for collection. While up slightly from 2000 (80%), this percentage is substantially higher than it was 1995 (68%). As pointed out earlier (see pages 3 and 4) this is significantly higher than the current rate for organics collection service.

Use of City-Provided Bin

Of those who compost yard waste, three-quarters (75%) use a bin to do so. One-quarter (24%) reported that they piled up their compost and did not use a bin for containment.

Of those who use a bin for containment, 110 (62% of bin users) know that they are using a bin provided by the City of Seattle. Another 7 (4%) were not sure of the origins of their bin, but their description of the bin suggests it may have originally been obtained through a City-sponsored distribution program.

To summarize the use of City-provided yard waste composting bins:

- 75% of all back yard waste composters use a City-provided bin;
- 46% of all back yard waste composters know they use a City-provided bin;
- 3% of back yard waste composters may be using a City-provided bin; and,
- 25% pile up their compostables without using a bin or use some other method.

Whether it's a bin provided by the City or a bin obtained elsewhere, the vast majority of bin users report that the bin they currently use still works well. The following table presents respondents' self-assessment of the working condition of the bin(s) they use:

Table 15: Condition of Back Yard Composting Bins

Base: Back Yard Bin Users	Total (178)	City-Provided (110)	Other Bin (57)
Bin is like new	40%	41%	39%
No longer like new, but still works very well	43%	42%	46%
In need of repair, but works fairly well	9%	11%	7%
Needs replacement	6%	5%	9%

Those who compost their yard waste at home were asked to report how likely they were to get a new bin within the next year if cost was not a consideration:

- 5% said they were *extremely likely* to get a new bin;
- 7% said they were *very likely*;
- 15% said they were *somewhat likely*;
- 26% said they were *not very likely*; and,
- 46% said they were *not at all likely* to get a new bin.

To convert these responses describing intentions into a realistic estimator of actual behavior, the same process used in the 2000 study was employed:

> **Follow-through Estimator,** a method to convert stated intentions to an estimate of likely behavior. The percentage of those who say they are *extremely likely* to perform the act in question is discounted by 25% (so, 75% are considered as likely to follow through) and the percentage who said they were *very likely* to perform the act in question is discounted by 67% (so, 33% are considered as likely to follow through).

In this situation, the percentage of home yard waste composters likely to purchase a new bin is estimated to be about 6% – the same percentage who already noted that the bin they currently use is in need of replacement. This percentage translates to about 2.4% of all single family households, or about 3,700 households.

When the cost of getting a new bin from the City is defined as $25, the percentage of back yard composters who are likely to purchase a new bin within the next year diminishes. At a cost of $25:

- 4% said they were *extremely likely* to get a new bin at $25;
- 4% said they were *very likely*;
- 14% said they were *somewhat likely*;
- 30% said they were *not very likely*; and,
- 47% said they were *not at all likely* to get a new bin at $25.

Applying the Follow-through Estimator to these responses results in an estimate of about 4% of current back yard composters who are likely to purchase a new bin from the City at a cost of $25. This percentage translates to about 1.7% of all single family households, or about 2,600 households.

The City is considering offering the back yard composting bin online for $25 and a delivery service for the bin at a cost of $15. Back yard composters who were likely to purchase a bin in the next year were asked to describe their level of interest in purchasing a new bin online for $25 and paying a $15 fee for delivery. Applying the Follow-through estimators to their responses results in an estimate of about 3% of current back yard composters who are likely to purchase a new bin from the City at a cost of $25 and a delivery fee of $15. This percentage translates to about 1.3% of all single family households, or about 2,000 households.

To gauge the distribution channel of choice, those who reported that they were at least somewhat likely to purchase a bin either at a central distribution point or through an online channel were asked which channel they preferred. Overall, 80% prefer the online channel for ordering a bin; however, most of this group would prefer to pick up the bin rather than pay the $15 delivery charge:

- 54% said they would prefer to order it online and pick up the bin from the City;
- 29% said they would prefer to order it online and have it delivered for $15; and,
- 14% said they would prefer to buy it at a central distribution point.

A later section will describe the potential market for compost bins from the non-composting population.

Lawn Care Activities and Behaviors

Eighty-seven percent (87%, 522 people) live in households that have a lawn. These 522 Seattle residents were asked to describe their yard care activities and behaviors.

The following table presents the methods typically used for dealing with grass clippings among those with a lawn. The percentages from 2005 are compared to those from 2000.

Table 16: Typical Methods for Dealing with Grass Clippings

Base = Have a lawn	January 2005 *(522)*	December 2000 *(528)*
Typically leave grass clippings on the lawn	41%	43%
Typically take grass clippings to the curb for pick-up	42%	33%
Typically compost the grass clippings	20%	26%
Typically leave the decision to another / gardener	8%	12%

While the percentage of those who typically leave their grass clippings on the lawn has not changed in the past five years, the percent who take their grass clippings to the curb for pick-up has increased significantly. Use of curbside pick-up services for grass clippings has increased both among those who compost their yard waste and those who do not compost their yard waste:

Table 17: Use of Curbside Pick-Up Services

	January 2005		December 2000	
Base = Have a lawn	Compost *(211)*	Do Not *(311)*	Compost *(256)*	Do Not *(272)*
Use curbside pick-up service	27%	53%	19%	47%

Seattle residents who reported some behavior other than leaving their grass clippings on the lawn were asked if their household ever left its grass clippings on the lawn when the lawn was mowed. The following table summarizes the percentage of households that ever grasscycle:

Summary of Grasscycling Behavior

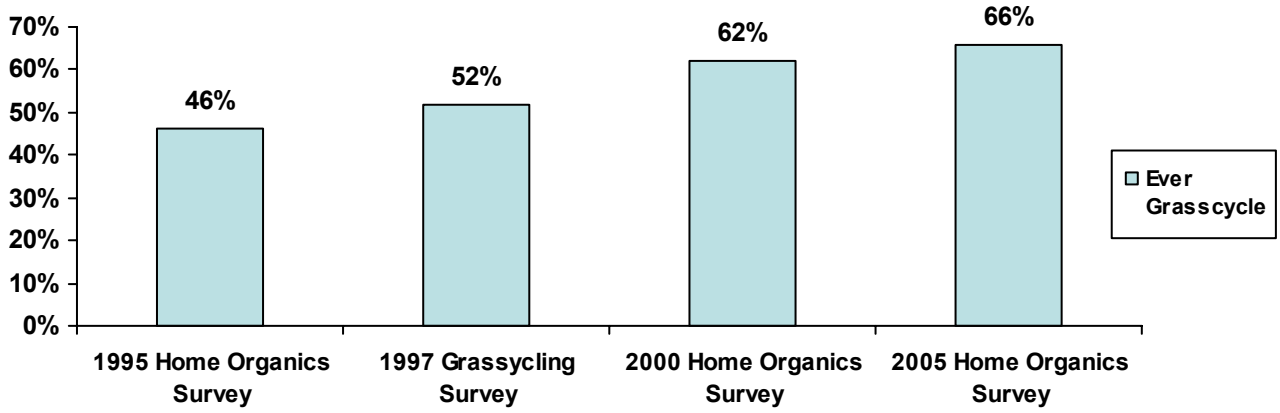
Table 18: Grasscycling Behavior

	January 2005			December 2000		
Base = Have a lawn	Total *(522)*	Compost *(211)*	Do Not *(311)*	Total *(528)*	Compost *(256)*	Do Not *(272)*
Typically grasscycle	41%	47%	37%	42%	49%	36%
Ever grasscycle	24%	28%	22%	19%	21%	18%
Total grasscycling behavior	**65%**	**75%**	**59%**	**62%**	**70%**	**54%**
Never grasscycle	35%	25%	41%	38%	30%	46%

Yard waste composters continue to be more likely than their non-composting counterparts to report that they ever grasscycle.

The data strongly indicates that likelihood to grasscycle has consistently increased over the past 10 years:

Table 19: Likelihood to Grasscycle



To understand more about when people tend to leave their grass clippings on the lawn, grasscyclers were asked to report if they "regularly," "occasionally," "rarely," or "never" grasscycled in spring, summer and fall. The following table presents this information:

Table 20: Regularity of Grasscycling

	Spring	Summer	Fall
Regularly	48%	64%	58%
Occasionally	30%	23%	27%
Rarely	7%	7%	8%
Never	2%	5%	5%

While the data from 2000 indicates that households tend to grasscycle least often in the fall, the 2005 data suggests that households grasscycle least often in the spring. It is reasonable to assume that grasscycling is less regular in the Spring because of the abundance of grass growing in this season. In Summer and Fall lawns produce less clippings, making it easier to grasscycle. As in 2000, the data suggests that if households grasscycle, they tend to do so with regularity rather than just "rarely" or even "never."

Usage of and Interest in Purchasing Mulch Mowers

Among the 342 respondents who ever grasscycle, 50% reported that they currently use a mulch mower and 42% reported that they do not use a mulch mower.

The 144 respondents who grasscycle but are not using a mulch mower were asked how likely they might be to get a new mulch mower if they were presented with research information showing that a mulch mower makes it easier to mow the lawn and helps keep the lawn looking healthy. Even if presented with this type of research information, interest in acquiring a mulch mower is low:

- 0% said they were *extremely likely* to get a mulch mower;
- 2% said they were *very likely*;
- 23% said they were *somewhat likely*;
- 38% said they were not *very likely*; and,
- 35% said they were *not at all likely*.

The 237 grasscyclers who either already own a mulch mower or who are not disinclined to get one (those who did not say that they are not likely to purchase one in the coming year) were asked how interested they might be in purchasing a new one in the next year. Respondents were asked to assume that the new mulch mower would be made by a well-known mower manufacturer and would be sold for about 20% off the retail list price. Interest in purchasing this new mulch mower is relatively low:

- 2% said they were *extremely likely* to purchase one;
- 5% said they were *very likely*;
- 16% said they were *somewhat likely*;
- 27% said they were *not very likely*; and,
- 47% said they were *not at all likely*.

Applying the Follow-through Estimator (see page 28 for details) to these percentages to adjust for follow through on intentions, roughly 3% of those who ever grasscycle are likely to purchase a new mulch mower for 20% off the retail price.

Awareness of Northwest Natural Yard Days

Twenty-one percent (21%) of those who ever grasscycle are aware of a program put on by local government organizations called *Northwest Natural Yard Days*. Of those who are aware of the program, 72% have received information or learned about discounts offered through the program:

- 19% have taken advantage of discounts (other than a mulch mower); and,
- 11% have purchased a mulch mower.

Current Food Waste Behavior

The Eligible Food Waste Composting Market

The eligible market for managing food waste is considered to be 100% since all households generate food scraps. As the following list shows, households use a variety of methods for disposing of food scraps:

- 66% put at least some food scraps in the regular trash;
- 49% put at least some food scraps in the yard waste container and take it to the curb for pick-up;
- 49% put at least some food scraps in the garbage disposal; and,
- 26% compost at least some food scraps in the back yard.

The following summary presents the primary method used for disposal of food scraps:

- 38% of all households primarily dispose of food scraps in the regular trash;
- 25% primarily dispose of food scraps in the curbside yard waste container;
- 18% primarily dispose of food scraps using the disposal;
- 15% put them in a compost bin or pile in the back yard;
- 5% have other disposal means or do not generate food scraps.

Offering the service of disposing food scraps in the yard waste curbside collection container has changed the way Seattle residents deal with their food scraps. The table on the following page is presented as a summary to facilitate comparisons with prior years:

Table 21: Comparison of Food Waste Composting Activities, 1995 v. 2000 v. 2005

Base: Total Sample	Dec. 2005 (600)	Jan 2000 (600)	Jan 1995 (610)
Food waste taken to curbside organics bin (not composted at home)	37%	NA	NA
Compost at home and use curbside	13%	NA	NA
Food waste composted at home (no curbside use)	13%	31%	25%
Neither compost at home nor use curbside	38%	69%	75%

Some of the food waste that otherwise would have been composted in the back yard is now being taken to the curbside. Thirteen percent (13%) of Seattle households are splitting their food scraps between their back yard compost bin or pile and their curb side yard waste container.

The percentage of Seattle residents who primarily compost their food scraps has declined since the last survey, returning to the level that was found in the 1995 survey:

Table 22: Comparison of Food Waste Composters, 1995 v. 2000 v. 2005

Base: Total Sample	Dec. 2005 (600)	Jan 2000 (600)	Jan 1995 (610)
Home composting is primary means of dealing with food waste	15%	18%	14%
Compost some food waste at home, but use some other method as the primary means of dealing with food waste	11%	13%	11%

Likelihood to continue composting at least some food scraps at home is moderately high. Among those who currently compost:

- 54% are *extremely likely* to continue composting food waste;
- 21% are *very likely* to continue composting;
- 12% are *somewhat likely* to continue;
- 8% are *not very likely* to continue; and,
- 3% are *not at all likely* to continue.

Affect of Curbside Collection on Home Food Waste Composting

The survey indicates that the curbside program has contributed to the decline in home composting of vegetative food waste. In particular:

- about 3% of the total population stopped home food waste composting after the curbside service began, resulting in a reduction of about 12% in the number of home food waste composters;
- about 2.5% of the total population, which amounts to about 10% of all home food waste composters, significantly reduced the amount of food waste that they composted at home after the service began; and
- about 8% overall, or about a third of all home food waste composters, either stopped composting food waste at home or report that they compost less food waste.

Use of City-Supplied Bins for Home Composting

The 156 people who currently compost at least some of their food waste were asked if they used any type of outdoor bin or container for composting these food scraps. Eighty-four percent (84%) said they did have a bin and 16% said they did not. About one-half of those who use a bin are currently using one that they purchased or received from the City:

- 45% use a bin provided by or received from the City;
- 36% use a bin obtained elsewhere; and,
- 16% do not use a bin.

Of those who have a City-provided bin:

- 61% have a green cone;
- 24% have a worm bin; and,
- 9% have a black cone or a black bell-shaped container (Earth Machine).

Those who compost food waste in outdoor bins and are at least somewhat likely to continue doing this were asked to report how likely they are to purchase a new food waste composting bin from the City if it was available for $25. Interest in purchasing a new bin is modest:

- 5% said they are *extremely likely* to purchase a new bin;
- 12% said they are *very likely*;
- 19% said they are *somewhat likely*;
- 25% said they are *not very likely*; and,
- 38% said they are *not at all likely*.

After applying the Follow-through Estimator (see page 28 for details) to adjust for likely behaviors, the data indicates that about 7% of those who compost food waste are in the market for a $25 new bin provided through the City.

Disposal Usage

Among the 600 Seattle residents, 83% report that they have a garbage disposal and six out of ten who have a garbage disposal (60%) report that they use it at least occasionally.

Of the 295 respondents who report at least occasional use of the garbage disposal:

- 29% say they use it several times a day;
- 27% say they use it about once a day;
- 28% say they use it no more often than a few times a week; and,
- 14% say they use it less often than that.

Among the 295 respondents (49% of the total sample) who have and use a garbage disposal:

- 18% currently compost at least some of their food waste; and,
- 45% currently put at least some food scraps in their yard waste container.

Among the 305 respondents (51% of the total sample) who either do not have or do not use a garbage disposal:

- 33% currently compost at least some of their food waste; and,
- 53% currently put at least some food scraps in their yard waste container.

Use of Curbside Pick-Up Services

Although the opportunity has been offered for less than one year, one-half (49%) of all Seattle residents report that they are putting food scraps in the yard waste container they take to the curbside for City pick-up.

Of those who are putting at least some food waste in their yard waste container for pick-up (295 people), 26% report that they are also composting in their back yard.

Most of the food scraps that are placed in with the yard waste are food scraps that otherwise would have been placed in the regular trash. When asked what they used to do with their food scraps prior to using the curbside yard waste container:

- 73% said they used to put those food scraps in the regular trash;
- 22% said they used to put them down the garbage disposal; and,
- 20% said they used to compost those food scraps.

Composting behaviors have declined since the City made available pick-up service for food waste. Of the 295 people who are using curbside pick-up services for food waste, 17 people (6%) reported that they no longer compost in favor of using the curbside pick-up services. Among those who currently or recently composted food scraps and currently use curbside pick-up services:

- 9% say they have increased the food that they compost in the back yard;
- 41% say that the food they compost at home has remained the same; and,
- 46% say that the food they compost at home has decreased.

Storage of Curbside Bound Food Scraps

Seventy-one percent (71%) of those who place at least some of their food scraps in their curbside yard waste container say that they store those food scraps in the kitchen before

taking them to the yard waste container. Twenty-two percent (22%) say that they immediately take these food scraps some other place.

Of those who store their food scraps in the kitchen (210 people):

- 24% put them in a plastic container with a lid;
- 14% put them in a paper bag;
- 13% put them in a waxed milk carton;
- 11% put them in a special waste basket;
- 10% put them in a plastic bag;
- 6% put them in a regular bucket or pail;
- 6% put them in a standard container with a lid (general description);
- 6% put them in a coffee can or other metal container; and,
- 4% put them in an indoor small compost bin made for kitchens.

Regardless of how food scraps are stored, most people say that the food scraps placed in the yard waste container are loose and not contained (58%). Paper bags are the most frequently mentioned container system used:

- 58% deposit their food scraps in with their yard waste loose;
- 30% contain them inside a paper bag;
- 16% contain them in a waxed milk carton;
- 6% keep them inside a plastic bag; and,
- 4% wrap them or mix them with paper.

Time Consequences of Using Curbside Service for Food Waste

Those who place at least some of their food scraps in their yard waste container were asked whether using this system requires them to spend more time, the same amount of time, or less time than they used to spend dealing with their food scraps. Six out of ten (61%) state that using the yard waste container has not resulted in any change in the amount of time it takes to deal with food scraps:

- 61% say the time required has stayed about the same;
- 33% say that they now spend more time; and,
- 5% say that they now spend less time.

Satisfaction with Food Waste Pick-Up Services

Overall, satisfaction with the City's food waste collection service is very high:

- 31% are *extremely satisfied*;
- 45% are *very satisfied*;
- 19% are *somewhat satisfied*;
- 1% are *not very satisfied*; and,
- 1% are *not at all satisfied*.

The few who were not satisfied (7 people) had a variety of issues providing no clear direction on improvements that might be important to consider (multiple responses were accepted):

- 2 people said the carts were unwieldy, big and clumsy;
- 1 person complained about the mess – in the can and on the streets;
- 1 person felt that the program wasn't worth having because most scraps were composted;
- 1 person complained that they didn't have a place to store the cart;
- 1 person felt that there was too much trash getting into the organic waste;
- 1 person believed that it was a nuisance and time consuming to wrap scraps in paper first;
- 1 person felt the whole procedure was too much work;
- 1 person was worried about attracting too many insects; and,
- 1 person stated that storing scraps in the kitchen prior to disposal was a health hazard.

Awareness and Usage of City Programs

Northwest Natural Yard Days

Seventeen percent (17%) of the 547 respondents asked stated that they were aware of a program put on by local government organizations called *Northwest Natural Yard Days*. Awareness is highest among those who practice grasscycling and those who compost yard waste:

- 25% of those who compost are aware of *Northwest Natural Yard Days*; and,
- 21% of those who grasscycle are aware of *Northwest Natural Yard Days.*

Of those who are aware of this program, 70% have received information or learned about discounts offered through this program. Further:

- 18% have taken advantage of other (beyond the mulch mower) discounts or special promotions offered; and,
- 9% have purchased a mulch mower through this program.

Interest in visiting a retail location (assuming they are convenient) to take advantage of the discounts available during Northwest Natural Yard Days in the next year is modest:

- 4% say they are *extremely likely* to visit a retail location;
- 12% say they are *very likely*;
- 35% say they are *somewhat likely*;
- 27% say they are *not very likely*; and,
- 22% say they are *not at all likely*.

Natural Lawn and Garden Hotline

About one-quarter (23%) of the total sample of 600 respondents stated that they had heard of Seattle's Natural Lawn and Garden Hotline. Those who compost either yard and/or food waste are significantly more likely to be aware of this Hotline than are their non-composting counterparts (30% versus 17% respectively).

Among those who are aware of the Natural Lawn and Garden Hotline, 21% have called this number. In the past five years, households who have made use of the hotline report making an average of 2.3 calls to the service.

Likelihood to call the Hotline is relatively moderate:

- 4% of the total sample say they are *extremely likely* to call in the next year;
- 10% say they are *very likely*;
- 28% are *somewhat likely*;
- 34% are *not very likely*; and,
- 23% are *not at all likely*.

Those who compost both yard and food waste are significantly more likely than their non-composting counterparts to say they are likely to call (19% say they are either *extremely* or *very likely* compared to 11% respectively).

Master Composters

Overall, about one-quarter (27%) of the total sample of 600 respondents reported that they had heard of the Master Composters. This is very close to the result from the 2000 survey, in which 26% of respondents were aware of the program. Those who compost either yard or food waste are significantly more likely than their counterparts to report awareness of this program (43% versus 16% respectively).

IV. Potential Market: Detailed Findings

Potential Yard Waste Market

Fifty-nine percent (59%) of those with a lawn or garden currently either do not compost their yard waste or don't know whether they compost their yard waste. As in 2000, 88% of these non-composters say that they ever put yard waste out at the curb or alley for collection.

Respondents were asked to explain their reasons for not composting yard waste at home. Most reasons fell into one or more of the categories listed in Table 23.

Table 23: Reasons for Not Composting Yard Waste at Home

Base = Non-yard waste composters	January 2005 (336)	December 2000 (294)
Don't have the space / Yard is too small	20%	22%
Too much trouble / Takes too much time	16%	8%
Takes too much time / Too busy	13%	12%
Easier to use the City's curbside pick-up program	11%	8%
I don't know how to do it	7%	9%
Not enough to compost	7%	10%
Concerned about attracting animals	6%	5%
Taken care of by other person / gardener	5%	5%
Do not have a container	3%	5%

Note: some respondents gave multiple reasons. The percentages in Table 23 reflect the first reason given.

Those who were not composting their yard waste were asked how likely they might be to do so in the next year or so if they were provided more information about how to make it easier and pest free.

Table 24: Likely to Compost Yard Waste in the Next Year

Base = Non-yard waste composters	January 2005 *(336)*	December 2000 *(294)*
Extremely likely	7%	7%
Very likely	14%	14%
Somewhat likely	27%	33%
Not very likely	21%	23%
Not at all likely	28%	19%

The percentage of non-yard waste composters who are likely to compost in the future has not changed over the past five years, although the percentage of respondents saying that they are not at all likely to begin composting has increased significantly. After applying the Follow-through Estimator (see page 28 for details) to better reflect likely behaviors, the data continues to indicate that about 10% of the non-yard waste composters are likely to start composting in the next year.

Comparing the reasons for not composting yard waste at home given by those who say they are likely to begin composting in the next year to the reasons given by those who say they are not likely to begin composting reveals some differences between the two groups:

- Those planning to begin composting in the coming year are more likely to give lack of time as the reason they are not currently composting. This is partly because this group includes many who reported that they had recently moved and had not had the time to set up their composting system. The prospective composters are also more like to say they do not currently compost because they don't know how to do it.
- Those not planning to compost in the coming year are more likely to give the ease of the City's curbside program as a reason for not composting at home. They are also somewhat more likely to cite lack of space, the trouble involved and a lack of material to compost as reasons for not taking up the practice.

Bin Distribution

The percentage of non-yard waste composters who have a City-supplied bin has not changed in the past five years:

Table 25: Possession of Composting Bin

Base = Non-yard waste composters	January 2005 (336)	December 2000 (294)
Have any yard waste composting bin they could use	13%	17%
Have a City-supplied bin they could use	8%	8%

Interest in purchasing a bin designed specifically for yard waste composting in the next year or so is moderate:

- 4% are *extremely likely* to purchase a composting bin;
- 10% are *very likely*;
- 21% are *somewhat likely*; and,
- 66% are *not very* or *not at all likely* to purchase a composting bin.

Applying the Follow-through Estimator (see page 28 for details) to better reflect likely behaviors, this equates to demand among roughly 6% of the non-yard waste composting households.

Assuming a price of $25 per bin, interest in purchasing a City-provided bin decreases:

- 1% are *extremely likely* to purchase a composting bin;
- 6% are *very likely*;
- 15% are *somewhat likely*; and,
- 76% are *not very* or *not at all likely* to purchase a $25 composting bin.

Adjusting these numbers to better predict behaviors, roughly 3% of the non-yard waste composters are likely to purchase a bin from the City at a price of $25.

Interest in purchasing a $25 bin from the City if it was available online with an associated $15 delivery charge is roughly the same:

- <1% are *extremely likely* to order a bin online;
- 7% are *very likely*;
- 14% are *somewhat likely*; and,
- 79% are *not very* or *not at all likely* to purchase online a $25 bin.

Unlike those who are currently composting their yard waste, the non-yard waste composters are more interested in ordering a bin online and having the City deliver it for an additional $15 charge. Those who showed any interest in purchasing a City-provided bin were asked to report which channel of distribution and delivery method they preferred:

- 53% said they'd prefer to order the bin online and have it delivered for $15;
- 32% said they'd prefer to order it online and pick it up themselves; and,
- 14% said they'd prefer to buy it in person at a special event.

Potential Grasscycling Market

One-third (33%) of those who have a lawn report that they never leave grass clippings on their lawn. With the exception of the degree to which the landscaper is allowed to make this decision, reasons for not grasscycling have not changed over the past five years:

Table 26: Reasons for Not Grasscycling

Base = Those who never grasscycle	December 2005 (170)	January 2000 (201)
It is unsightly / Don't like how it looks	21%	22%
Lawn care service / Gardener takes care of it (makes decision)	13%	29%
Not healthy / Not good for the grass	9%	6%
Don't have the right mower / No mulch mower	8%	8%
Messy (general)	8%	NA
Don't want to track grass into house	6%	5%
Use the mower's grass catcher	6%	6%
Lawn is too small to worry about it	5%	NA
Use the clippings in my composting bin	4%	5%
Do not mow / Do not mow often enough	3%	4%

As in 2000, the two primary reasons for never leaving grass clippings on the lawn are that someone else takes the responsibility for making this decision and that it is not aesthetically appealing.

Respondents were asked how likely they would be to leave grass clippings on the lawn in the future if they had more information about how this makes moving the lawn easier, helps maintain a clean appearance and improves the health of the lawn.

Table 27: Likelihood of Grasscycling in the Future

Base = Those who never grasscycle	December 2005 (170)	January 2000 (185)
Extremely likely	6%	10%
Very likely	15%	21%
Somewhat likely	28%	26%
Not very likely	24%	19%
Not at all likely	22%	18%

Likelihood to grasscycle appears to have declined a bit over the years. In 2000, 31% stated they were likely to grasscycle if they had information about how it made it easier to mow and improved the health of the lawn. In 2005, only 21% stated that they'd be likely to grasscycle even if they had this type of information.

Applying the Follow-through Estimator (see page 28 for details) to reflect likely behaviors, the 2005 data suggests that even with an effective and compelling educational program we can expect to influence only about 10% of the population with a lawn who never grasscycle.

There is not a significant difference in the reasons for not grasscycling given by those who say they are likely to begin grasscycling in the next year and those who say they are not likely to begin grasscycling. Prospective grasscylcers are slightly more likely to say that the reason they do not currently grasscycle is the way it makes their lawn look. Those who do not plan to grasscycle are more likely to say that they have a lawn care service that handles their mowing.

Awareness of Northwest Natural Yard Days

Eight percent (8%) of the 180 people who never grasscycle are aware of a program put on by local government organizations called Northwest Natural Yard Days.

Of those who are aware of this program, 64% have received information or learned about discounts offered through this program. Further, 11% have taken advantage of discounts or special promotions offered other than the mulch mower program.

Interest in visiting a retail location (assuming they are convenient) to take advantage of the discounts available during Northwest Natural Yard Days in the next year is modest:

- 2% say they are *extremely likely* to visit a retail location;
- 9% say they are *very likely*;
- 36% say they are *somewhat likely*;
- 27% say they are *not very likely*; and,
- 26% say they are *not at all likely*.

Potential Food Waste Composting Market

Among the 444 Seattle residents who are not currently composting their food scraps, likelihood to start composing in the next year or so is relatively low:

- 2% say they are *extremely likely* to start composting food waste;
- 7% say they are *very likely*;
- 15% are *somewhat likely*;
- 33% are *not very likely*; and,
- 41% are *not at all likely*.

Applying the Follow-through Estimator (see page 28 for details), these results indicate that about 4% of the non-food waste composters are likely to start composting within the next year or so.

Bin Distribution

Fourteen percent (14%) of the non-food waste composters (444 people) report that they own a compost bin that they could use if they wanted to. Of these 62 people who currently own a bin:

- 45% say it is not a bin provided by the City;
- 35% say it is a green cone provided by the City;
- 5% say it is a worm bin provided by the City; and,
- 8% say it is some other type of City-provided bin.

Interest in purchasing a new food waste composting bin from the City within the next year, if available for $25, is moderate:

- 5% of those likely to start composting food waste are *extremely likely* to purchase a new bin;
- 19% are *very likely*;
- 50% are *somewhat likely*;
- 12% are *not very likely*; and,
- 12% are *not at all likely*.

Using the Follow-through Estimator (see page 28 for details) to adjust for likely future behavior, we may expect to see a potential market of about 2% of all non-food waste composters. Of these bins that might be purchased within the next year, 18% could be viewed as replacement or supplementary bins (18% of these people say they already have a bin at home).

Of the small percentage of the market who do not compost, do not put food scraps in with their yard waste for curbside pick-up and who are not likely to change these behaviors in the coming year (47 people), 91% are aware that food waste can be composted. Their primary reasons for not composting include:

- 26% say that food waste composting attracts animals;
- 21% say they don't have a bin or an area in which to compost;
- 16% say they are too lazy;
- 9% say they just moved and don't have it set up yet;
- 9% say they don't know how to compost; and,
- 7% say they haven't thought about it because composting isn't that important.

Appendix 1: Topline Report

X1:

S1. Do you live in this household and are you 18 years of age or older?

N =		600
Yes	1	=> X2 600
No	2	0
Don't know/Refused	9	0

X2:

S2. Do you live within the city limits of Seattle? PROMPT IF NEEDED: The city limits include the area north of 100th Street in South Seattle and south of 145th Street in North Seattle.

N =		600
Yes	1	=> X3 600
No	2	0
Don't know/Refused	9	0

X3:

READ LIST

S3. What type of home do you live in. Is it:

N =		600
A single-family house	1	566
A duplex	2	21
A triplex	3	6
A four-plex	4	7
An apartment, condominium or townhouse with more than four units	5	0
Something else	6	0
Don't know/Refused	9	0

X4:

S4. For this survey, I need to speak with the person in this household who is most responsible for handling the household's organic waste-that is, yard waste and food waste. Would that be you?

N =		600
Yes, I am responsible	1	565
Shared equally with others	2	35
No, I am not responsible	3	=> /INT03 0
Don't know/Refused	9	=> /INT03 0

X5:

S5. Does your home have a yard?

N =		600
Yes	1	589
No	2	=> B1 11
Don't know/Refused	9	=> B1 0

X6:

S6. Do you personally take care of your yard at home, does someone else in your household take care of it, do you hire a professional landscaper, or do you hire someone else to do it?

N =			589
I do it/I'm equally responsible for it	1		491
Someone else in household takes care of it	2		31
Have a landscaper	3		30
Hire someone else	4		25
Other	5		12
Don't know/Refused	9		0

A1:

A1. These next questions are about your yard. Does your home have a lawn - that is, an area with grass?

=> B1
si NOT X5=1

N =			589
Yes	1		522
No	2		67
Don't know/Refused	9		0

A2:

A2. Does your home have a garden?

N =			589
Yes	1		446
No	2		141
Don't know/Refused	9		2

A3:

MULTIPLE MENTIONS ALLOWED

A3. Is it a vegetable or fruit garden, a flower garden, or some other type of garden?

=> A4
si A2=2,9

N =			446
Vegetable and/or fruit garden	01		224
Flower	02		375
Herb	03		45
Plants/bushes/shrubs/trees	04	I	22
Other landscaped gardens	05	I	5
Other	06	I	5
Other (specify)	97	O	0
Don't know/Refused	99	X	0

A4:

A4. What does your household do with its yard waste? Do you ever put yard waste out at the curb or alley for collection?

N =			574
Yes	1		491
No	2		80
Don't know/Refused	9		3

A5:

A5. For the purposes of this survey, the word "compost" means the breakdown of food or yard waste into a material that can be used to improve the soil. (Other than yard waste you might take to the curb for collection), Does your household currently compost any of its yard waste at home on your own property?

=> /ERR1
si NOT ERR1==0 AND NOT A5==0

N =			574
Yes	1		238
No	2	=> A11	332
Don't know/Refused	9	=> A11	4

A6:

A6. Thinking about just the yard waste that you compost on your own property, does your household use a yard waste compost bin, do you pile it up without a bin, or do you do something else with it?

N =			238
Use a bin	01		178
Pile it up without a bin	02		56
Bury it/dig into the ground/dig a hole and fill it with yard waste	03	I	7
Spread througout yard/mulch it and place it in flower bed/garden	04	I	6
Use a worm bin/green cone	05	I	5
Other	06	I	5
Other Specify	97	O	0
(DO NOT READ) Don't know/Refused	99	X	0

A7:

A7. To the best of your knowledge, is the bin you have one that was purchased from the City, or did you get it some other way?

=> A9
si NOT A6=01

N =			178
Purchased from the City	1	=> A8	110
Got it some other way	2	=> A8	57
Don't know (Bin was there when we moved in)	3		8
Don't know/Refused	9		3

A7B:

A7.2Can you please describe what your bin looks like? (PROBE FOR SHAPE, MATERIAL AND COLORS)

N =			11
Record responses on paper	1	D	11

A8:

READ LIST

A8. How would you describe the condition of the bin that you have? Would you say that it is:

N =		178
Like new	1	72
No longer like new, but still working very well	2	77
In need of some repair, but still working fairly well	3	16
In need of replacement	4	11
(DO NOT READ) Don't know/Refused	9	2

A9:

READ LIST

A9. Just thinking about the next year or so, and assuming that cost was not a consideration, how likely are you to get a (new) composting bin for the yard waste you compost on your own property? Would you say you are:

N =			238
Extremely likely to purchase a (new) backyard composting bin	1		12
Very likely	2		17
Somewhat likely	3		36
Not very likely	4	=> SK16	63
Not at all likely	5	=> SK16	110

A10:

READ LIST

A10. As you may know, the City of Seattle distributes yard waste composting bins designed specifically for backyard composting. This bin is a plastic cylinder with green sides and a black top and bottom, and it stands 3' tall and is 3' in diameter. The bins are available on special event days at a central distribution point in the City. Next year, assuming the price is $25 per bin, how likely are you to purchase a (new) waste composting bin from the City? Would you say you are:

N =		65
Extremely likely	1	9
Very likely	2	10
Somewhat likely	3	34
Not very likely	4	9
Not at all likely	5	3
(DO NOT READ) Don't know/Refused	9	0

A10B:

READ LIST

A10b. If you could order one of these $25 yard waste composting bins online at any time during the year and either pick it up from the City or have it delivered to your home for a $15 delivery charge, how likely would you be to buy one of these bins online from the City in the next year? Would you say you are:

N =			65
Extremely likely	1		8
Very likely	2		6
Somewhat likely	3		23
Not very likely	4		13
Not at all likely	5		14
(DO NOT READ) Don't know/Refused	9		1

A10C:

READ LIST

A10c. If you decided to purchase one of these $25 yard waste composting bins from the City, which one of these best describes how you would prefer to get it? Would you prefer:

sinon => +1

si A10<4 AND A10B<4

N =			35
To buy it at one of the special event days at a central distribution point in the City	01		5
Order it online and pick it up from the City	02		19
Order it online and have it delivered for an additional $15	03		10
(DO NOT READ) Other (specify)	97	O	0
(DO NOT READ) Don't know/Refused	99		1

A11:

A11. We're interested in knowing more about why people don't compost yard waste at home on their own property. Why isn't your household composting its yard waste at home on your property right now?

N =			336
RECORD VERBATIM ON PAPER	1	D	336

A12:

A12. Does your household currently have a compost bin that you could use if you decided to compost your yard waste at home?

N =			336
Yes	1		43
No	2	=> A14	291
Don't know/Refused	9	=> A14	2

A13:

A13. Is this a compost bin that you got from the City, or do you have some other type of bin?

N =			43
Have a City-supplied bin	1	=> A15	28
Have some other type of bin	2	=> A14	9
Don't know - Bin was here when we moved in	3 X		6
Don't know/Refused	9 X		0

A13B:

A13.2Can you please describe what your bin looks like? (PROBE FOR SHAPE, MATERIAL AND COLORS)

N =			6
Record responses on paper	1 D		6

A14:

A14. Were you aware that the City offers a yard waste compost bin designed specifically for composting yard waste at home? The City typically charges about $25 for one of these compost bins. Did you know they offered these?

N =			308
Yes	1		144
No	2		156
Don't know/Refused	9		8

A15:

READ LIST

A15. I am interested in knowing how likely your household might be to compost your yard waste at home in the next year or so if you were provided more information about how to make it easy and pest free. Would your household be:

N =			336
Extremely likely to compost yard waste in the next year or so	1		24
Very likely	2		47
Somewhat likely	3		91
Not very likely	4	=> A18	70
Not at all likely	5	=> A18	93
(DO NOT READ) Don't know/Refused	9	=> A18	11

A16:

READ LIST

A16. Thinking about the next year or so, and assuming that cost was not a consideration, how likely are you to get a bin designed specifically to compost yard waste at home? Would you say you are:

N =			162
Extremely likely to purchase a (new) composting bin	5		12
Very likely	4		33
Somewhat likely	3		69
Not very likely	2	=> A18	31
Not at all likely	1	=> A18	17

A17:

READ LIST

A17. As you may know, the City of Seattle distributes yard waste composting bins designed specifically for backyard composting. This bin is a plastic cylinder with green sides and a black top and bottom, and it stands 3' tall and is 3' in diameter. The bins are available on special event days at a central distribution point in the City. Next year, assuming the price is $25 per bin, how likely are you to purchase a (new) waste composting bin from the City? Would you say you are:

N =			114
Extremely likely	5		5
Very likely	4		20
Somewhat likely	3		52
Not very likely	2		25
Not at all likely	1		10
(DO NOT READ) Don't know/Refused	9		2

A17B:

READ LIST

A17b. If you could order one of these $25 yard waste composting bins online at any time during the year and either pick it up from the City or have it delivered to your home for a $15 delivery charge, how likely would you be to buy one of these bins online from the City in the next year? Would you say you are:

N =			114
Extremely likely	5		1
Very likely	4		24
Somewhat likely	3		46
Not very likely	2		27
Not at all likely	1		15
(DO NOT READ) Don't know/Refused	9		1

A17C:

READ LIST

A17c. If you decided to purchase one of these $25 yard waste composting bins from the City, which one of these best describes how you would prefer to get it? Would you prefer:

=> +1

si NOT (A17=3,4,5 AND A17B=3,4,5)

N =			66
To buy it at one of the special event days at a central distribution point in the City	01		9
Order it online and pick it up from the City	02		21
Order it online and have it delivered for an additional $15	03		35
(DO NOT READ) Other (specify)	97	O	0
(DO NOT READ) Don't know/Refused	99		1

A18:

READ LIST IF NEEDED

A18. Now about your lawn. When you mow your lawn, or have your lawn mowed, what is typically done with the grass clippings?

=> A27
si NOT A1=1

N =			522
Put in yard waste bin and taken to the curb	01		200
Raked or bagged and taken to the curb	02		20
Raked or bagged and taken to the transfer station	03		6
Composted in the yard or somewhere on my property	04		107
Leave them on the lawn	05		215
Don't mow	06		3
Landscaper hauls them away	07		41
Other	08	N	3
Other (specify)	97	O	0
Don't know/Refused	99	X	7

A19:

A19. Does your household ever leave grass clippings on the lawn when it's mowed?

=> A22A
si A18=05

N =			307
Yes	1	=> A22A	127
No	2		170
Don't know/Refused	9	=> A23	10

A20:

A20. For what reasons have you decided against leaving grass clippings on the lawn?

N =			170
RECORD VERBATIM ON PAPER	1	D	170

A21:

READ LIST

A21. If you had more information about how leaving grass clippings on the lawn makes mowing the lawn easier, helps maintain a clean appearance and improves the health of the lawn, how likely would you be start leaving your clippings on the lawn? Would you be:

N =		170
Extremely likely	5	10
Very likely	4	26
Somewhat likely	3	44
Not very likely	2	41
Not at all Likely	1	38
(DO NOT READ) Don't know/Refused	9	11

A22A:

READ THE MONTHS

A22. When your household's lawn is mowed during the Spring (March, April, May), how often do you leave your grass clippings on the lawn? Would you say the grass clippings are left on the lawn regularly, occasionally, rarely or never?

N =		342
Regularly	1	199
Occassionally	2	103
Rarely	3	25
Never	4	8
(DO NOT READ)Don't know	9	7

A22B:

READ THE MONTHS

A22. How about when it's mowed in the Summer (June, July, August) ? Would you say you leave your grass clippings on the lawn regularly, occasionally, rarely or never?

N =		342
Regularly	1	219
Occassionally	2	78
Rarely	3	24
Never	4	17
(DO NOT READ)Don't know	9	4

A22C:

READ THE MONTHS

A22. How about when it's mowed in the Fall (September, October, November)? Would you say you leave your grass clippings on the lawn regularly, occasionally, rarely or never?

N =		342
Regularly	1	199
Occassionally	2	92
Rarely	3	28
Never	4	18
(DO NOT READ)Don't know	9	5

A23:

READ LIST

A23. If you had more information about how leaving grass clippings on the lawn makes mowing the lawn easier, helps maintain a clean appearance and improves the health of the lawn, how likely would you be to leave your grass clippings on the lawn more often? Would you be:

=> +1
si A22A=1,2 OR A22B=1,2 OR A22C=1,2

N =		33
Extremely likely	5	4
Very likely	4	4
Somewhat likely	3	11
Not very likely	2	4
Not at all Likely	1	5
(DO NOT READ) Don't know/Refused	9	5

A24:

A24. What type of a mower is typically used for mowing your household's lawn now? Is the mower a mulch mower-that is, a mower designed specifically to chop grass clippings into small pieces so they can be left on the lawn?

N =			352
Yes, use a mulch mower	1	=> A26	170
No, not a mulch mower	2		144
Someone else mows	3	=> A26	12
Don't know/Refused	9	=> A26	26

A25:

READ LIST

A25. If you were provided with research information that shows how using a mulch mower makes it easier to mow the lawn and helps keep your lawn looking healthy, how likely would you be to get a new mulch mower like I just described in the next year or so? Would you be:

N =			144
Extremely likely	1		0
Very likely	2		3
Somewhat likely	3		33
Not very likely	4	=> A27	54
Not at all likely	5	=> A27	51
(DO NOT READ) Don't know/Refused	9		3

A26:

A26. Assume that you could purchase a new mulch mower made by a well-known mower manufacturer for about 20% off the retail list price. In the next year or so, how likely is your household to purchase a mulch mower like I described?

N =			247
Extremely likely	5		4
Very likely	4		13
Somewhat likely	3		39
Not very likely	2		66
Not at all Likely	1		116
Don't know/Refused	9		9

A27:

A27. Do you recall seeing or hearing anything about a program put on by local government organizations called Northwest Natural Yard Days?

N =			547
Yes	1		91
No	2	=> A31	439
Don't know/Refused	9	=> A31	17

A28:

A28. Have you ever received information or learned about discounts offered through this program?

N =			91
Yes	1		64
No	2	=> A31	20
Don't know/Refused	9	=> A31	7

A29:

A29. Did your household purchase a mulch mower through this program?

=> A30
si NOT A24=1

N =		31
Yes	1	8
No	2	23
Don't know/Refused	9	0

A30:

A30. Has your household taken advantage of any (other) discounts or special promotions offered through this program?

N =		64
Yes	1	16
No	2	45
Don't know/Refused	9	3

A31:

READ LIST

A.31 The Northwest Natural Yard Days program offers information about natural yard care as well as discounts on mulching mowers and other gardening products. Assuming that the retail locations are convenient, how likely are you to visit a retail outlet in order to take advantage of the discounts available during Northwest Natural Yard Days this coming year? Would you be:

N =		547
Extremely likely	5	21
Very likely	4	67
Somewhat likely	3	192
Not very likely	2	146
Not at all Likely	1	118
(DO NOT READ) Don't know/Refused	9	3

B1A:

B1. These next questions are about food waste-that is, table or kitchen scraps left over from eating or cooking, including the scraps left on plates after a snack or meal. When you think about these food scraps, or other types of food waste that you need to dispose of, what does your household do with them? Do you ever:

B1.1: Put them in your regular trash can

N =		600
Yes	1	398
No	2	201
Don't know	9	1

B1B:

Repeat question as necessary

B1. These next questions are about food waste-that is, table or kitchen scraps left over from eating or cooking, including the scraps left on plates after a snack or meal. When you think about these food scraps, or other types of food waste that you need to dispose of, what does your household do with them? Do you ever:

B1.2: Put them down the garbage disposal

N =		600
Yes	1	295
No	2	200
Don't have a garbage disposal	8	105
Don't know	9	0

B1C:

Repeat question as necessary

B1. These next questions are about food waste-that is, table or kitchen scraps left over from eating or cooking, including the scraps left on plates after a snack or meal. When you think about these food scraps, or other types of food waste that you need to dispose of, what does your household do with them? Do you ever:

B1.3: Put them in your yard waste container and take them to the curb or alley for pick-up

N =		600
Yes	1	306[8]
No	2	291
Don't know	9	3

B1D:

Repeat question as necessary

B1. These next questions are about food waste-that is, table or kitchen scraps left over from eating or cooking, including the scraps left on plates after a snack or meal. When you think about these food scraps, or other types of food waste that you need to dispose of, what does your household do with them? Do you ever:

B1.4: Put them in your compost bin or compost pile at home

=> /ERR1
si NOT ERR1==0 AND NOT B1D==0

N =		600
Yes	1	156
No	2	443
Don't know	9	1

B1BB:

READ LIST

B1.2.You mentioned that you use a garbage disposal for some of your food waste. How often does your household use the garbage disposal? Do you use it:

=> +1
si NOT B1B=1

N =		295
Several times a day	1	87
Once a day	2	81
A few times a week	3	83
Once a week	4	24
Less often than once a week	5	16
Never	6	1
(DO NOT READ) Don't know/Refused	9	3

[8] Of the 306 respondents reporting that they put food waste in their yard waste container, 11 responded to an earlier question (A4) by saying that they do not use the yard waste service. Consequently, this report uses the more conservative estimate of 295 (49%) for this group.

B2:

READ LIST SINGLE MENTION ONLY

B2. When you think about all the table or kitchen scraps or food waste that your house generates, how do you handle most of it? Does most of your food waste get:

élimination -> 4

selon NOT T5 NOT T6 NOT T7 NOT T8

N =		403
Put into regular trash can 01		144
Put down the garbage disposal 02		79
Put in a yard waste container that you then take to the curb or alley for pick-up 03		92
Put in a compost bin or pile at home 04		63
Split evenly between sources of disposal 05	I	11
Pets - give it to dog/cat 06	I	4
Other (please specify)....97	O	0
(DO NOT READ) Don't know/Refused....99	X	10

B3:

READ LIST--MULTIPLE MENTIONS OKAY

B3. Before you started putting your kitchen scraps in your curbside yard waste bin, what did your household typically do with these types of food scraps? Did you:

=> B15

si (A4=1 AND B1C=2,9)

N =		295
Put them in the regular trash....01		216
Put them down the garbage disposal 02		65
Compost them in your yard 03		59
Pets - give it dog/cat 04	N	2
Or, did you do something else with it (please specify)....97	O	0
(DO NOT READ) Don't know/Refused....99	X	3

B4:

B4. Now that you're putting food scraps in your curbside yard waste container, has the amount of food that you compost in your backyard increased, decreased or stayed about the same

sinon => B5

si B1D=1 OR B3=03

N =	93
Increased....1	8
Stayed the same....2	38
Decreased 3	43
(DO NOT READ) Don't know/Refused....9	4

B5:

B5. In your household, what is done with food scraps at the time they are generated? Do you store them in the kitchen, do you immediately take them some place else, or is there a better description?

N =			295
Store them in the kitchen	01		210
Immediately take them elsewhere	02	=> B7	66
Garbage disposal	03	I	7
Regular garbage can	04	I	5
Pets - give to dog/cat	05	N	2
Other (please specify)	97	O => B7	0
(DO NOT READ) Don't know/refused	99	=> B7	5

B6:

DO NOT READ LIST

B6. What do you store them in? DO NOT READ

N =			210
Paper bag	01		30
Waxed milk carton	02		27
Plastic bag	03	I	22
Plasitc container (with a lid) (Tupperware)	04	I	50
Garbage can/waste basket (special/plastic/small)	05	I	24
Coffee can/metal container/small can/stainless steel container	06	I	12
Cardboard box/Newspaper	07	I	3
A bowl (stainless steel/plastic)	08	I	6
A container/container with a lid (general)	09	I	12
A bucket/a pail (plastic/metal)	10	I	13
Glass/ceramic container (with a lid) (jar)	11	I	7
Indoor/mini compost bin (made special for kitchens)	12	I	8
Other	13	I	9
Yogurt Containers	14	NI	4
Other (please specify)	97	O	0
Don't know/Refused	99	X	1

B7:

B7. When you put your food scraps inside your curbside yard waste container, do you put the food scraps in loose, do you contain them inside a paper bag, a waxed milk carton, or do you handle it some other way?

N =			295
Loose	01		170
Paper bag	02		88
Waxed mild carton	03		48
Plastic bag	04	I	19
Newspaper/mix with shredded paper/paper towel	05	I	11
Other (please specify)	97	O	0
(DO NOT READ) Don't know/Refused	99	X	7

B8:

(Removed)

B9:

(Removed)

B10:

(Removed)

B11:

B11. Now that you're putting some food scraps in your yard waste container, how has this changed the amount of time it takes to deal with your household's food scraps and waste? Are you spending more time dealing with food waste, less time, or has the amount of time stayed about the same?

N =			295
More time	1		97
Stayed about the same	2	=> B13	180
Less time	3	=> B13	16
(DO NOT READ) Don't know/Refused	9	=> B13	2

B12:

READ LIST

B12. About how much additional time per week does your household spend now that you're putting food scraps in your yard waste container? Are you spending __:

N =			97
At least 15 minutes more per week	1		51
Between 15 and 30 minutes more per week	2		28
Between 30 and 45 minutes more per week	3		6
Between 45 and 60 minutes more per week	4		3
An hour more per week	5		2
(DO NOT READ) Don't know/Refused	9		7

B13:

READ LIST

B13. Overall, how satisfied are you with the City's food waste collection service? Are you:

N =			295
Extremely satisfied	5	=> B22	92
Very satisfied	4	=> B22	133
Somewhat satisfied	3	=> B22	55
Not very satisfied	2		4
Not at all satisfied	1		3
Don't know/Refused	9	=> B22	8

B14:

B14. Why aren't you satisfied? PROBE: What could be done to make the service better?

N =				7
RECORD VERBATIM ON PAPER	1	D	=> B22	7

B15:

B15. You mentioned that you are not currently putting food scraps in your yard waste container for curbside pickup. Before now, were you aware that the City picks up food scraps as part of its curbside yard waste pickup service?

=> B19
si NOT A4=1

N = ...			196
Yes.....1			121
No.....2		=> B17	71
Don't know/Refused 9		=> B17	4

B16:

B16. For what reasons don't you put your food scraps in with your yard waste for pickup?

N = ...			121
RECORD VERBATIM ON PAPER.....1	D		121

B17:

B17. (As you may know,) Earlier this year the City agreed to start picking up some kinds of food waste as part of its yard waste pickup program. Knowing that, how likely is your household to start putting at least some of its food waste in your yard waste container within the next year or so? Is your household:

N = ...			196
Extremely likely 5		=> B22	22
Very likely.....4		=> B22	40
Somewhat likely.....3		=> B22	63
Not very likely.....2			40
Not at all Likely.....1			28
Don't know/Refused 9			3

B18:

B.18 If the City made available smaller containers at a lower price than the regular-sized bins, and if the bins had lids that sealed tight that you could use for taking your food waste to the curb for pick-up, how likely is your household to start putting at least some of its food waste in a bin like I just described? Is your household:

N = ...			71
Extremely likely 5		=> B22	2
Very likely.....4		=> B22	6
Somewhat likely.....3		=> B22	21
Not very likely.....2		=> B22	15
Not at all Likely.....1		=> B22	25
Don't know/Refused 9		=> B22	2

B19:

B19. Before now, were you aware that the City picks up some kinds of kitchen scraps or food waste as part of its curbside yard waste pickup service?

N =			109
Yes	1		69
No	2		39
Don't know/Refused	9		1

B20:

READ LIST

B20. (As you may know,) Earlier this year the City agreed to start picking up some types of food waste as part of its yard waste pickup program. Knowing that, how likely is your household to start putting at least some of its food waste in your yard waste container within the next year or so? Is your household:

N =			109
Extremely likely	5		11
Very likely	4		17
Somewhat likely	3		16
Not very likely	2		24
Not at all Likely	1		36
Don't know/Refused	9		5

B21:

READ LIST

B21. If the City made available smaller containers at a lower price than the regular-sized bins, and if the bins had lids that sealed tight that you could use for taking your food waste to the curb for pick-up, how likely are you to sign up for City pick-up service for food waste? Is your household:

N =			109
Extremely likely	5		12
Very likely	4		23
Somewhat likely	3		27
Not very likely	2		17
Not at all Likely	1		28
Don't know/Refused	9		2

B22:

B22. You mentioned that you (also) have a compost bin or pile at home that you use for composting some food scraps. Does your household currently use any type of outdoor bin or container for composting these food scraps?

=> B27
si NOT (B1D=1)

N =			156
Yes	1		131
No	2	=> B24	25
Don't know/Refused	9	=> B24	0

B23:

B23.What type of bin do you have? Do you have a food waste composting bin or container that you purchased or received from the City?

N =			131
Yes	1		70
No	2	=> B25	56
Don't know/Refused	9	=> B25	5

B24:

READ LIST

B24. What type of bin do you have from the City? Is it:

N =			95
Green Cone	01		43
Worm Bin	02		17
Does not use any bin for composting food waste (bury directly in ground/pile)	04	I	24
Black cone/black and shaped like a bell/earth machine - is black	05	I	6
Other	06	NI	3
Or, is there a better description?	97	O	0
(DO NOT READ) Don't know/Refused	99	X	5

B25:

READ LIST

B25. Thinking about the next year or so, how likely are you to continue composting (at least part of) your food waste in these types of outdoor compost bins at home? Would you say you are:

N =			156
Extremely likely	5		85
Very likely	4		32
Somewhat likely	3		18
Not very likely	2	=> C1	12
Not at all Likely	1	=> C1	5
Don't know/Refused	9	=> C1	4

B26:

READ LIST

B.26 As you may know, the City of Seattle has a program to distribute bins for composting food scraps at home. These bins are green plastic cones that stand about two and a-half feet tall. If the program was available within the next year or so, how likely would you be to purchase a (new) food waste composting bin or container from the City if it was available for $25? Would you be:

N =			135
Extremely likely	5		7
Very likely	4		16
Somewhat likely	3		26
Not very likely	2		34
Not at all Likely	1		51
Don't know/Refused	9		1

B27:

B27. I understand that you do not have a special bin or area at home right now where you are composting food waste. Even though you may not be using it, does your household own any kind of bin or container that is designed for composting food waste at home in your yard if you wanted to? Please do not include the yard waste container that you take to the curbside if you have one.

=> B32
si B1D=1

N =			444
Yes	1		62
No	2	=> B30	380
Don't know/Refused	9	=> B30	2

B28:

B28. What type of bin do you have? Do you have a food waste composting bin or container that you purchased or received from the City?

N =			62
Yes	1		30
No	2	=> B30	28
Don't know/Refused	9	=> B30	4

B29:

READ LIST

B29. What type of bin do you have from the City? Is it a:

N =			30
Green Cone	01		22
Worm Bin	02		3
Black (plastic and round/with a lid...)	03	I	3
Other	04	I	2
Or, is there a better description?	97	O	0
(DO NOT READ) Don't know/Refused	99	X	2

B30:

READ LIST

B30. Thinking about the next year or so, how likely are you to start making some of your own compost by depositing your own food scraps at home on your property? Would you say you are:

N =			444
Extremely likely	5		9
Very likely	4		33
Somewhat likely	3		67
Not very likely	2	=> C1	146
Not at all Likely	1	=> C1	182
Don't know/Refused	9	=> C1	7

B31:

B31. As you may know, the City of Seattle has a program to distribute bins for composting food scraps at home. These bins are green plastic cones that stand about two and a-half feet tall. If the program was available within the next year or

so, how likely would you be to purchase a (new) food waste composting bin or container from the City if it was available for $25? Would you be:

N =			109
Extremely likely	5		5
Very likely	4		21
Somewhat likely	3		55
Not very likely	2		13
Not at all Likely	1		13
Don't know/Refused	9		2

B32:

B32. Did you know that food waste can be composted?

=> C1
si B1C=1 OR B1D=1

N =			47
Yes	1		43
No	2	=> C1	4
Don't know/Refused	9	=> C1	0

B33:

B33. For what reasons have you decided against composting your food waste in your back yard at home?

N =			43
RECORD VERBATIM ON PAPER	1	D	43

C1:

C1. Now I'd like to tell you about some programs that the City of Seattle offers. The City of Seattle has a Natural Lawn and Garden hotline that you can call to ask questions about gardening and yard care. Have you ever heard of Seattle's Natural Lawn and Garden hotline?

N =			600
Yes	1		137
No	2	=> C4	451
Don't know/Refused	9	=> C4	12

C2:

C2. Have you, or has anyone in your household, ever called this hotline?

N =			137
Yes	1		29
No	2	=> C4	105
Don't know/Refused	9	=> C4	3

C3:

PROBE FOR BEST GUESS

C3. In the past five years or so, how many times in total have you or someone in your household called the Natural Lawn and Garden hotline? ENTER NUMBER

N =		29
Don't know/Refused	99	0
	0	2
	1	10
	2	10
	3	2
	4	1
	5	2
	6	1
	10	1

C4:

C4. (Given what you know about it) How likely are you, or someone in your household, to call this hotline in the next year or so? Would you say you are:

N =		600
Extremely likely	5	21
Very likely	4	59
Somewhat likely	3	170
Not very likely	2	206
Not at all Likely	1	135
Don't know/Refused	9	9

C5:

C5. The City has volunteers, called Master Composters, who can staff events, make presentations and answer questions about composting. Have you ever heard of the Master Composters?

N =		600
Yes	1	164
No	2	428
Don't know/Refused	9	8

D1:

D1. The next questions are for classification purposes only. What is your age please? Are you:

N =		600
Under 25	1	8
25 - 34	2	78
35 - 44	3	153
45 - 54	4	136
55 - 64	5	117
65 or older	6	97
Don't know/Refused	9	11

D2:

D2. Do you own or rent the home you live in?

N =		600
Own	1	516
Rent	2	74
Other	3	5
Don't know/Refused	9	5

D3:

D3. What is your home zip code? ENTER ZIP

N =		600
Don't know/Refused	99999	6
	98102	13
	98103	66
	98105	31
	98106	25
	98107	20
	98108	13
	98109	9
	98112	29
	98115	55
	98116	38
	98117	46
	98118	29
	98119	18
	98122	23
	98125	42
	98126	17
	98133	20
	98136	21
	98144	26
	98146	5
	98155	3
	98177	7
	98178	8
	98197	1
	98199	29

D4:

D4. Including yourself, how many people currently live in your household?

N =			600
One	1	=> D6	95
Two	2		264
Three	3		103
Four	4		102
Five	5		24
Six	6		3
Seven	7		1
Eight or more	8		1
Don't know/Refused	9		7

D5:

D5. And how many of those are over 18 years of age?

N =			505
One	1		18
Two	2		397
Three	3		62
Four	4		13
Five	5		3
Six	6		0
Seven	7		1
Eight or more	8		0
Don't know/Refused	9		11

D6:

D6. What is your racial or ethnic background? Are you:

N =			600
Caucasian/White	1		473
African American	2		18
Asian	3		24
Latino/Hispanic	4		6
American Indian	5		4
Other (specify on next screen)	7		5
Mixed (specify on next screen)	8		25
Don't know/Refused	9		45

D6A:

Other race

=> +1

si NOT D6=7

N =			5
Enter race	01	DO	0
Don't know/refused	99	I	5

D6B:

Mixed race

=> +1

si NOT D6=8

N =			25
Enter race	01	DO	0
Caucasian/White and Asian	02	I	6
Mixed/multi-racial - general	03	I	3
African American and Caucasian/White	04	I	4
Caucasian/White and Latino/Hispanic	05	I	3
American Indian and Caucasian/White	06	I	3
More than two racial or ethnic backgrounds	07	I	4
Refused	99	N	2

D7:

D7. What is the highest level of education you have had the opportunity to complete?

N =		600
High school graduate or less	1	48
Some college/Technical school/AA Degree	2	131
4-year college degree	3	188
Post graduate work/degree	4	214
Don't know/Refused	9	19

D8A:

D8. And was that:

=> +1
si NOT D8IN=1

N =			226
Under $30,000	1		43
$30,000 to under $50,000	2		75
$50,000 to under $75,000	3		91
$75,000 to under $100,000	4	N	0
$100,000 to under $150,000	5	N	0
$150,000 to under $200,000	6	N	0
$200,000 or over	7	N	0
Don't know/Refused	9		17

D8B:

D8. And was that:

=> +1
si NOT D8IN=2

N =			286
Under $30,000	1	N	0
$30,000 to under $50,000	2	N	0
$50,000 to under $75,000	3	N	0
$75,000 to under $100,000	4		117
$100,000 to under $150,000	5		92
$150,000 to under $200,000	6		39
$200,000 or over	7		20
Don't know/Refused	9		18

D9:

DO NOT READ DO NOT READ DO NOT READ

D9. Record gender:

N =		600
Male	1	253
Female	2	347

A7BV:

A7.2Can you please describe what your bin looks like? (PROBE FOR SHAPE, MATERIAL AND COLORS)

=> +1 si NOT A7B=1

N = ...			11
Enter verbatim here	01	D	0
It is green, small, round and has holes.....	02	I	1
Green round cylinder (about 4 ft tall/wide)	03	I	2
Square, dark green plastic.....	04	I	2
Made of wood, about 4 ft by 4 ft	05	I	2
Black plastic cone.....	06	I	1
3 ft by 2 ft cone.....	07	I	1
Green with a black lid (bottom that opens/ 4 ft high).....	08	I	2
14' tall	09	I	0
Square in shape.....	10	I	0
Refused.....	99	I	0

A11V:

A11.We're interested in knowing more about why people don't compost yard waste at home on their own property. Why isn't your household composting its yard waste at home right now?

=> +1
si NOT A11=1

N =			336
ENTER VERBATIM	01	DO	0
I don't have the space/have no good place to put a compost pile/have a small yard	02	I	86
The smell is bad/am afraid of the odor	03	I	13
Additional labor/too much trouble/inconvenient/too high maintenance/takes to much time to do it	04	I	51
Lack of knowledge/I don't know how to	05	I	28
That is all taken care of my gardener/my lawn care provider	06	I	15
The city picks it up (now/encouraged us to use it))/easier/more convenient to put it out at the curb/to use the city's program	07	I	39
The pick up program is part of the fee I already pay/I'm paying to have the city pick it up - why should I do their work	08	I	3
It attracts rats/may attract rats and other animals/raccoons	09	I	32
The dogs will get into it/we have a pet so I we would have to fence off an area in our yard to do it	10	I	7
We don't have that much yard waste to compost/I have no grass	11	I	23
Physical limitations - I'm older now and it is difficult for me to do/I'm too old	12	I	11
Have just moved recently (and haven't thought about it yet/plan on starting this spring)	13	I	10
I have no use for it/I don't need it/don't need the compost	14	I	10
We haven't started, but plan on it/will redo our garden and plan to put a compost pile in our yard then	15	I	5
I don't have a container/the right container/no receptacle for composting	16	I	16
When I mow the lawn I just mulch it/I leave it lying on the ground	17	I	5
I don't want to/would rather not - general	18	I	9
I don't have the time/I am too busy	19	I	26
We have a lot of yard waste - too much to compost	20	I	2
We purchase fertilize/compost (is a better quality/easier to)	21	I	4
Not interested in gardening/don't do much gardening	22	I	5
Type of waste we have (branches don't break down well/the ivy doesn't die)	23	NI	5
Concerns over attracting flies/bugs	24	NI	4
We are renters/the landlord makes those decisions	25	NI	3
Poor past experience with composting/materials didn't break down	26	NI	7
Other	27	NI	13
We don't have a garden (yet)	28	NI	3
I don't know/just haven't done it (and can't give you a reason why)	99	I	14

A13BV:

A13.2Can you please describe what your bin looks like? (PROBE FOR SHAPE, MATERIAL AND COLORS)

=> +1 si NOT A13B=1

N = ...			6
ENTER VERBATIM 01		DO	0
A horizontal cylinder with levers 02		I	1
Plastic, round and green with a black lid/cylinder that is green and black plastic 03		I	2
Hard plastic, about 4 ft tall, 2 1/2 ft wide, shaped like an upside down megaphone.....04		I	1
Green plastic pentagon, raised up on legs, I think it is 24 gallon size ...05		I	1
Green, about 3 ft tall and 1 1/2 ft in diameter.....06		I	1

A20V:

A20. We'd like to learn more about why people do not leave grass clippings on the lawn. For what reasons have you decided against leaving grass clippings on the lawn

=> +1
si NOT A20=1

N =			170
ENTER VERBATIM	01	DO	0
It is unsightly/for aesthetics/like the way it looks better without them/doesn't look neat	02	I	39
Leaves brown spots/it turns brown	03	I	6
It is not healthy/not good for the lawn (builds up thatch/causes moss)	04	I	14
I have a grass catcher on my mower/easier to use a grass catcher	05	I	9
We don't have the right mower/a mulching mower/our mower doesn't do a good job of spreading them evenly	06	I	13
It gets dragged/tracked into the house (by my kids/pets)	07	I	12
My lawn care service/gardener takes care of my lawn (and makes those decisions/I'd have to ask him why not)	08	I	23
My lawn is small/I don't have much of a lawn	09	I	9
I don't mow often enough/we wait too long to mow (so doesn't work well/clippings would be too long)	10	I	8
Lack of knowledge - don't know the benefits of it/ I don't know how to do that	11	I	3
I use in my composting bin/I use the clippings for my garden/dump the clippings in a wooded area	12	I	8
I have tried it before and it doesn't work for me/ it doesn't seem to decompose	13	I	3
I don't know - my spouse mows the lawn/you would have to ask my spouse	14	I	5
It is messy - general	15	I	11
It is easier to put it in the yard waste container for pick up	16	I	3
I rent/the owners decide what to do	17	I	4
Have been doing it the same way for 30 years/that is the way I was brought up to do it	18	I	2
Never thought about it/not something I put a lot of thought into	19	NI	2
Other	20	NI	6
Rat problems/rats start nesting in the clippings	21	NI	2
I don't know/there is no particular reason, I just don't do it	99	I	10

B14V:

B14. Why aren't you satisfied? PROBE: What could be done to make the service better?

=> +1
si NOT B14=1

N = ...		7
ENTER VERBATIM 01	DO	0
The carts are unwieldly, especially since we live in a hilly area/ the bin is big and clumsy 02	I	2
The mess they live in the can and the street 03	I	1
Because I compost my food waste there is so little to go in there that it is not worth having 04	I	1
I don't have a place to store it that is out of sight 05	I	1
Most people can't discern between animal and compost waste and there is too much trash getting in to it 06	I	1
In order to put things in there loose I have to either shred paper or have enough yard waste first 07	I	1
Too much work 08	I	1
Concerns over insects 10	NI	1
I hate the idea of all those different bags in my kitchen, it is a poor health practice 09	I	1

B16V:

B16. For what reasons don't you put your food scraps in with your yard waste for pickup?

=> +1
si NOT B16=1

N =			121
ENTER VERBATIM	01	DO	0
I compost them (makes good compost/have worm bin/green cone/ is more convenient to compost)	02	I	24
Forgot about change in policy/am not in the habit of doing it (yet)	03	I	9
Lack of knowledge on policy (still learning about it/not sure of what can go in there)	04	I	9
Don't have very many food scraps/not enough food scraps for pick up	05	I	14
It is easier to put it down the garbage disposal/I use the garbage disposal	06	I	6
It is smelly/it stinks/I have concerns regarding the odor	07	I	12
It encourages wildlife/attracts rats/don't like the idea of animals getting into it	08	I	16
Just haven't started yet/am not set up for it/when I get a bin I will use it	09	I	7
Laziness/too much trouble/a hassle/inconvenient (to save it/have to carry out to yard waste container)	10	I	23
The bugs get overwhelming/because of fruit flies	11	I	7
Don't have any/much yard waste to be picked up (with any regularity/in the winter)	12	I	4
It is dirty/messy (and I would have to clean out my yard waste container frequently	13	I	8
Not enough space in my yard waste/I have a lot of yard waste to put in the container	14	I	1
They don't pick it up often enough for food waste/yard waste doesn't get picked up after November until March	15	I	4
Concerns over storing them in the kitchen for sanitary reasons	16	I	2
Have pets that would get into it (if store in container on the counter)	17	I	2
Just don't want to (is easier to just throw out in the trash)	18	I	2
City not delivered the bin as promised/instructions said to use new large bins and we only have a regular one	19	I	2
Other	20	NI	3
I don't know how to get them there	21	NI	2
Don't know/no good reason, I just don't do it	99	I	4

B33V:

B33. For what reasons have you decided against composting your food waste?

=> +1
si NOT B33=1

N =			43
ENTER VERBATIM	01	DO	0
Just moved and have nothing set up yet/I haven't lived here that long	02	I	4
Not set up for it/don't have a bin/don't have a container	03	I	9
Too lazy/too much trouble/too difficult to manage/inconvenient	04	I	7
Physical limitations - can't see/too difficult for me physically	05	I	2
The smell	06	I	2
It attracts animals/do not want to attract rats	07	I	11
I don't have any time/we're too busy	08	I	2
Lack of knowledge - not sure how to do/need to learn more before I try it	09	I	4
Concerns over attracting insects	10	I	2
I have very little food waste	11	I	2
Just haven't gotten around to it/haven't started it yet	12	I	2
Have not thought about it/composting is not that important to us	13	I	3
Household pet concerns	14	I	2
I don't want to/would rather not - general	15	I	2
Other	16	NI	3
I don't know/just haven't done it (and can't give you a reason why)	99	I	1

Appendix 2: Survey Instrument

Seattle Public Utilities
2005 Home Organics Waste Management Survey
Draft 6 – November 28, 2005

Interviewer Name: _____ I.D. # _____

Date: _____ Finish Time: _____

Telephone Number: _____ Start Time: _____

Comments: _____ Total Time _____

Hello, this is ____ with Informa Research Services, an independent market research firm in Seattle. Today/Tonight we are conducting a survey for the City of Seattle about yard and food waste.

IF NEEDED: This is not a sales call. We do not sell any type of consumer products or services. This survey is being conducted for market research purposes only and everything you say will remain strictly anonymous and confidential. I assure you that neither your name nor telephone number will be placed on any type of mailing list as a result of your participation. I would sincerely appreciate the opportunity to include your opinions.

S1. Do you live in this household and are you 18 years of age or older?

a. Yes (CONTINUE)
b. No (ASK TO SPEAK WITH THAT PERSON)
c. DK/REF (ASK TO SPEAK WITH THAT PERSON)

S2. Do you live within the city limits of Seattle? PROMPT IF NEEDED: The city limits include the area north of 100th Street in South Seattle and south of 145th Street in North Seattle.

a. Yes (CONTINUE)
b. No (THANK & TERMINATE)
c. DK/REF (THANK & TERMINATE

S3. What type of home do you live in? Is it:

a. A single-family house
b. A duplex
c. A triplex
d. A four-plex
e. An apartment, condominium or townhouse with more than four units (THANK & TERMINATE)
f. Something else (THANK & TERMINATE)
g. DK/REF (THANK & TERMINATE)

S4. For this survey, I need to speak with the person in this household who is most responsible for handling the household's organic waste—that is, yard waste and food waste. Would that be you?

a. Yes, I am responsible (CONTINUE)
b. Shared equally with another (CONTINUE)
c. No, I am not responsible (ASK TO SPEAK WITH THAT PERSON)
d. DK/REF (ASK TO SPEAK WITH OTHER HEAD OF HOUSEHOLD)

S5. Does your home have a yard?

a. Yes (CONTINUE)
b. No (SKIP TO Q B1)
c. DK/REF (SKIP TO Q B1)

S6. Do you personally take care of your yard at home, does someone else in your household take care of it, do you hire a professional landscaper, or do you hire someone else to do it?

a. I do it/I'm equally responsible for it
b. Someone else in household takes care of it
c. Have a landscaper
d. Hire someone else
e. Other
f. DK/REF

Section A – Yard Waste Composting Section

(Asked of those who have a yard in Q S4)

A1. These next questions are about your yard. Does your home have a lawn—that is, an area with grass?

a. Yes
b. No
c. DK/REF

A2. Does your home have a garden?

a. Yes (CONTINUE WITH A3)
b. No
c. DK/REF

IF "NO" OR "DK/REF" TO BOTH A1 AND A2, SKIP TO SECTION B.
IF "YES" TO A2, CONTINUE.
IF "NO" OR "DK/REF" TO A2, SKIP TO A4.

A3. Is it a vegetable or fruit garden, a flower garden, or some other type of garden? MULTIPLE ANSWERS ACCEPTABLE.

a. Vegetable and/or fruit garden
b. Flower
c. Herb
d. Other (specify)
e. DK/REF

A4. What does your household do with its yard waste? Do you ever put yard waste out at the curb or alley for collection?

a. Yes
b. No
c. DK/REF

A5. For the purposes of this survey, the word "compost" means the breakdown of food or yard waste into a material that can be used to improve the soil.

(Other than yard waste you might take to the curb for collection), Does your household currently compost any of its yard waste **at home on your own property?**

a. Yes (CONTINUE)
b. No (SKIP TO Q A11)
c. DK/REF (SKIP TO Q A11)

A6. Thinking about just the yard waste that you compost on your own property, does your household use a yard waste compost bin, do you pile it up without a bin, or do you do something else with it?

a. Use a bin (CONTINUE)
b. Pile it up with out a bin (SKIP TO Q A9)
c. Other (specify) (SKIP TO Q A9)
d. DK/REF (SKIP TO Q A9)

A7. To the best of your knowledge, is the bin you have one that was purchased from the City, or did you get it some other way?

a. Purchased from the City (SKIP TO Q A8)
b. Got it some other way (SKIP TO Q A8)
c. DK—bin was here when we moved in (CONTINUE)
d. DK/REF (CONTINUE)

A7.2 Can you please describe what your bin looks like? PROBE FOR SHAPE, MATERIAL AND COLORS.

A8. How would you describe the condition of the bin that you have? Would you say that it is:

a. Like new
b. No longer like new, but still working very well
c. In need of some repair, but still working fairly well
d. In need of replacement
e. DK/REF

A9. Just thinking about the next year or so, and assuming that cost was not a consideration, how likely are you to get a (new) composting bin for the yard waste you compost on your own property? Would you say you are:

a. Extremely likely to purchase a (new) backyard composting bin
b. Very likely
c. Somewhat likely
d. Not very likely (SKIP TO INSTRUCTION BOX BEFORE Q A11)
e. Not at all likely (SKIP TO INSTRUCTION BOX BEFORE Q A11)

A10a. As you may know, the City of Seattle distributes yard waste composting bins designed specifically for backyard composting. This bin is a plastic cylinder with green sides and a black top and bottom, and it stands 3' tall and is 3' in diameter. The bins are available on special event days at a central distribution point in the City. Next year, assuming the price is $25 per bin, how likely are you to purchase a (new) waste composting bin from the City? Would you say you are:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

A10b. If you could order one of these $25 yard waste composting bins online at any time during the year and either pick it up from the City or have it delivered to your home for a $15 delivery charge, how likely would you be to buy one of these bins online from the City in the next year? Would you say you are:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

IF SOMEWHAT, VERY OR EXTREMELY TO BOTH Q 10a AND 10b CONTINUE. ALL OTHERS SHOULD SKIP TO INSTRUCTIONS BEFORE Q A11.

A10c. If you decided to purchase one of these $25 yard waste composting bins from the City, which one of these best describes how you would prefer to get it? Would you prefer:

a. To buy it at one of the special event days at a central distribution point in the City
b. Order it online and pick it up from the City
c. Order it online and have it delivered for an additional $15
d. Other (specify)
e. DK/REF

IF "YES" TO Q A1 SKIP TO GRASSCYCLING A18.
ALL OTHERS SHOULD SKIP TO SECTION B ON FOOD WASTE.

Asked of those who do not compost yard waste

A11. Why isn't your household composting its yard waste at home on your property right now?

_____

A12. Does your household currently have a compost bin that you could use if you decided to compost your yard waste at home?

a. Yes (CONTINUE)
b. No (SKIP TO Q A14)
c. DK/REF (SKIP TO Q A 14)

A13. Is this a compost bin that you got from the City, or do you have some other type of bin?

a. Have a City-supplied bin (SKIP TO Q A 15)
b. Have some other type of bin (SKIP TO Q 14)
c. DK—Bin was here when we moved in (CONTINUE)
d. DK/REF (CONTINUE)

A13.2 Can you please describe what your bin looks like? PROBE FOR SHAPE, MATERIAL, COLOR.

_____

A14. Were you aware that the City offers a yard waste compost bin designed specifically for composting yard waste at home? The City typically charges about $25 for one of these compost bins. Did you know they offered these?

a. Yes
b. No
c. DK/REF

A15. I am interested in knowing how likely your household might be to compost your yard waste at home in the next year or so if you were provided more information about how to make it easy and pest free. Would your household be:

a. Extremely likely to compost yard waste in the next year or so
b. Very likely
c. Somewhat likely
d. Not very likely (SKIP TO INSTRUCTIONS AFTER Q A17)
e. Not at all likely (SKIP TO INSTRUCTIONS AFTER Q A17)
f. DK/REF (SKIP TO INSTRUCTIONS AFTER Q A17)

A16. Thinking about the next year or so, and assuming that cost was not a consideration, how likely are you to get a (new) bin designed specifically to compost yard waste at home? Would you say you are:

a. Extremely likely to purchase a (new) composting bin
b. Very likely
c. Somewhat likely
d. Not very likely (SKIP TO INSTRUCTIONS AFTER Q A17)
e. Not at all likely (SKIP TO INSTRUCTIONS AFTER Q A17)

A17a. As you may know, the City of Seattle distributes bins that are designed specifically for composting yard waste at home. The bin is a plastic cylinder with green sides and a black top and bottom, and it stands 3' tall and is 3' in diameter. The bins are available at a central distribution point in the City on special event days. Assuming the price per bin is $25, in the next year or so, how likely are you to purchase a yard waste composting bin from the City for your home? Would you say you are:

1. Extremely likely
2. Very likely
3. Somewhat likely
4. Not very likely
5. Not at all likely
6. DK/REF

A17b. If you could order one of these $25 yard waste composting bins online at any time during the year and either pick it up from the City or have it delivered to your home for a $15 delivery charge, how likely would you be to buy one of these bins online from the City in the next year? Would you say you are:

g. Extremely likely
h. Very likely
i. Somewhat likely
j. Not very likely
k. Not at all likely
l. DK/REF

IF SOMEWHAT, VERY OR EXTREMELY TO BOTH Q 17a AND 17b CONTINUE. ALL OTHERS SHOULD SKIP TO INSTRUCTIONS BEFORE Q A18.

A17c. If you decided to purchase one of these $25 yard waste composting bins from the City, which one of these best describes how you would prefer to get it? Would you prefer:

f. To buy it at one of the special event days at a central distribution point in the City
g. Order it online and pick it up from the City
h. Order it online and have it delivered for an additional $15
i. Other (specify)
j. DK/REF

IF "YES" TO Q A1 CONTINUE WITH A 18.
ALL OTHERS SHOULD SKIP TO A 27

Grasscycling Section—Asked of those who have a lawn

A18 Now about your lawn. When you mow your lawn, or have your lawn mowed, what is typically done with the grass clippings?

a. Put in yard waste bin and taken to the curb
b. Raked or bagged and taken to the curb
c. Raked or bagged and taken to the transfer station
d. Composted in the yard or somewhere on my property
e. Leave them on the lawn (SKIP TO Q A 22)
f. Don't mow
g. Landscaper hauls them away
h. Other (specify)
i. DK/REF

A19. Does your household ever leave grass clippings on the lawn when it's mowed?

a. Yes (SKIP TO Q A22)
b. No (CONTINUE)
c. DK/REF (SKIP TO Q A23)

A20. For what reasons have you decided against leaving grass clippings on the lawn?

_____

A21. If you had more information about how leaving grass clippings on the lawn makes mowing the lawn easier, helps maintain a clean appearance and improves the health of the lawn, how likely would you be start leaving your clippings on the lawn? Would you be:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

SKIP TO Q A 27

A22. When your household's lawn is mowed during the ____, how often do you leave your grass clippings on the lawn? Would you say the grass clippings are left on the lawn regularly, occasionally, rarely or never? How about when it's mowed in the _____? Would you say you leave your grass clippings on ____?

	Reg	Occ	Rare	Never	DK
Spring (March, April, May)					
Summer (June, July, August)					
Fall (Sept, Oct, Nov)					

IF RARELY OR NEVER AND/OR DK/REF TO ALL, CONTINUE. OTHERWISE, SKIP TO Q A 24

A23 If you had more information about how leaving grass clippings on the lawn makes mowing the lawn easier, helps maintain a clean appearance and improves the health of the lawn, how likely would you be to leave your grass clippings on the lawn more often? Would you be:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

A24 What type of a mower is typically used for mowing your household's lawn now? Is the mower a mulch mower—that is, a mower designed specifically to chop grass clippings into small pieces so they can be left on the lawn?

a. Yes, use a mulch mower (SKIP TO Q A 26)
b. No, not a mulch mower (CONTINUE)
c. Someone else mows (SKIP TO Q A 26)
d. DK/REF (SKIP TO Q A 26)

A25 If you were provided with research information that shows how using a mulch mower makes it easier to mow the lawn and helps keep your lawn looking healthy, how likely would you be to get a new mulch mower like I just described in the next year or so? Would you be:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely (SKIP TO Q A 27)
e. Not at all likely (SKIP TO Q A 27)
f. DK/REF

A26 Assume that you could purchase a new mulch mower made by a well-known mower manufacturer for about **20%** off the retail list price. In the next year or so, how likely is your household to purchase a mulch mower like I described?

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

A27 Do you recall seeing or hearing anything about a program put on by local government organizations called Northwest Natural Yard Days?

a. Yes (CONTINUE)
b. No (SKIP TO Q A31)
c. DK/REF (SKIP TO Q A31)

A28 Have you ever received information or learned about discounts offered through this program?

a. Yes (CONTINUE IF ALSO "YES" TO Q A24. OTHERWISE, SKIP TO Q A 30)
b. No (SKIP TO Q A31)
c DK/REF (SKIP TO Q A31)

A29 Did your household purchase a mulch mower through this program?

a. Yes
b. No
c. DK/REF

A30 Has your household taken advantage of any (other) discounts or special promotions offered through this program?

a. Yes
b. No
c. DK/REF

A31 The Northwest Natural Yard Days program offers information about natural yard care as well as discounts on mulching mowers and other gardening products. Assuming that the retail locations are convenient, how likely are you to visit a retail outlet in order to take advantage of the discounts available during Northwest Natural Yard Days this coming year? Would you be:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

Section B – Food Waste Composting

(Asked of everyone)

B1. These next questions are about food waste—that is, table or kitchen scraps left over from eating or cooking, including the scraps left on plates after a snack or meal. When you think about these food scraps, or other types of food waste that you need to dispose of, what does your household do with them? Do you ever:

	Yes	No	DK	Don't Have
B1.1: Put them in your regular trash can	1	2	9	
B1.2: Put them down the garbage disposal	1	2	9	8
B1.3: Put them in your yard waste container and take them to the curb or alley for pick-up	1	2	9	
B1.4. Put them in your compost bin or compost pile at home	1	2	9	

IF "YES" TO B1.2 (GARBAGE DISPOSAL) CONTINUE. ALL OTHERS SHOULD SKIP TO INSTRUCTIONS BEFORE B2

B1.2. You mentioned that you use a garbage disposal for some of your food waste. How often does your household use the garbage disposal? Do you use it: READ LIST?

a. Several times a day
b. Once a day
c. A few times a week
d. Once a week,
e. Less often than once a week, or
f. Never
g. DK/REF

IF "YES" TO ONLY ONE IN B1, SKIP TO INSTRUCTIONS BEFORE Q B3. IF "YES" TO TWO OR MORE IN B1 OR IF "NO" OR "DK" TO ALL IN B1, CONTINUE.

B2. When you think about all the table scraps, kitchen scraps or food waste that your house generates, how do you handle most of it? Does most of your food waste get: (READ BACK THOSE FOR WHICH RESPONDENT SAID "YES" IN Q B1 OR READ ALL IF "NO/DK" TO ALL IN Q B1):

a. Put into the regular trash can
b. Put down the garbage disposal
c. Put in a yard waste container that you then take to the curb or alley for pickup
d. Put in a compost bin or pile at home
e. Other (specify)
f. DK/REF

IF "YES" TO "YARD WASTE CONTAINER" (B1.3) ABOVE, CONTINUE.

IF "YES" TO YARD WASTE CONTAINER IN B1.3 AND IF "NO" OR "DK/REF" TO A4, VERIFY ANSWERS TO BOTH A4 AND B1.3.

IF "NO" OR "DK/REF" TO "YW CONTAINER" AND IF "YES" TO Q A4, SKIP TO Q B15.

IF "NO" OR "DK/REF" TO "CITY-SUPPLIED YW CONTAINER" AND IF "NO" OR "DK/REF" TO Q A4, SKIP TO Q B19.

B3. Before you started putting your table or kitchen scraps in your curbside yard waste bin, what did your household typically do with these types of food scraps? Did you: (MULTIPLE RESPONSES ACCEPTABLE)

a. Put them in the regular trash
b. Put them down the garbage disposal
c. Compost them in your yard CONTINUE
d. Or, did you do something else with them (specify)
e. DK/REF

IF "YES" TO B1.4 AND/OR IF "C" IS MENTIONED IN Q B3, CONTINUE. OTHERWISE, SKIP TO Q B 5.

B4. Now that you're putting food scraps in your curbside yard waste container, has the amount of food that you compost in your backyard increased, decreased or stayed about the same?

a. Increased
b. Stayed the same
c. Decreased
d. DK/REF

B5. In your household, what is done with food scraps at the time they are generated? Do you store them in the kitchen, do you immediately take them some place else, or is there a better description?

a. Store them in the kitchen (CONTINUE)
b. Immediately take them elsewhere (SKIP TO Q B7)
c. Other (specify) (SKIP TO Q B7)
d. DK/REF (SKIP TO Q B7)

B6. What do you store them in? DO NOT READ

a. Paper bag
b. Waxed milk carton
c. Other (specify)
d. DK/REF

B7. When you put your food scraps inside your curbside yard waste container, do you put the food scraps in loose, do you contain them inside a paper bag, a waxed milk carton, or do you handle it some other way?

a. Loose
b. Paper bag
c. Waxed milk carton
d. Other (specify)
e. DK/REF

B11. Now that you're putting some food scraps in your yard waste container, how has this changed the amount of time it takes to deal with your household's food scraps and waste? Are you spending more time dealing with food waste, less time, or has the amount of time stayed about the same?

a. More time (CONTINUE)
b. Stayed about the same (SKIP TO Q B13)
c. Less time (SKIP TO Q B13)
d. DK/REF (SKIP TO Q B13)

B12. About how much additional time per week does your household spend now that you're putting food scraps in your yard waste container? Are you spending ____?

a. At least 15 minutes more per week
b. Between 15 and 30 minutes more per week
c. Between 30 and 45 minutes more per week
d. Between 45 and 60 minutes more per week
e. An hour or more per week
f. DK/REF

B13 Overall, how satisfied are you with the City's food waste collection service? Are you:

a. Extremely satisfied (SKIP TO INSTRUCTIONS BEFORE B 22)
b. Very satisfied (SKIP TO INSTRUCTIONS BEFORE B 22)
c. Somewhat satisfied (SKIP TO INSTRUCTIONS BEFORE B 22)
d. Not very satisfied (CONTINUE)
e. Not at all satisfied (CONTINUE)
f. DK/REF (SKIP TO INSTRUCTIONS BEFORE B 22)

B14 Why aren't you satisfied? PROBE: What could be done to make the service better?

_____

_____

_____

SKIP TO INSTRUCTIONS BEFORE Q B 22.

CONTINUE ONLY IF "YES" TO Q A4. ALL OTHERS SHOULD SKIP TO Q B19.

Have yard waste collection but do not use it for food waste

B15 You mentioned that you are not currently putting food scraps in your yard waste container for curbside pickup. Before now, were you aware that the City picks up food scraps as part of its curbside yard waste pickup service?

a. Yes (CONTINUE)
b. No (SKIP TO Q B17)
c. DK/REF (SKIP TO Q B17)

B16 For what reasons don't you put your food scraps in with your yard waste for pickup?

_____

_____

_____

B17 (As you may know,) Earlier this year the City agreed to start picking up some kinds of food waste as part of its yard waste pickup program. Knowing that, how likely is your household to start putting at least some of its food waste in your yard waste container within the next year or so? Is your household:

a. Extremely likely SKIP TO INSTRUCTIONS BEFORE Q B22
b. Very likely SKIP TO INSTRUCTIONS BEFORE Q B22
c. Somewhat likely SKIP TO INSTRUCTIONS BEFORE Q B22
d. Not very likely
e. Not at all likely
f. DK/REF

B18 If the City made available smaller containers at a lower price than the regular-sized bins, and if the bins had lids that sealed tight that you could use for taking your food waste to the curb for pick-up, how likely is your household to start putting at least some of its food waste in a bin like I just described? Is your household:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

SKIP TO INSTRUCTIONS BEFORE Q B22.

Have food waste, but no yard waste collection:

B19 Before now, were you aware that the City picks up some kinds of kitchen scraps or food waste as part of its curbside yard waste pickup service?

a. Yes (CONTINUE)
b. No (CONTINUE)
c. DK/REF (CONTINUE)

B20 (As you may know,) Earlier this year the City agreed to start picking up some types of food waste as part of its yard waste pickup program. Knowing that, how likely is your household to start putting at least some of its food waste in your yard waste container within the next year or so? Is your household:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

B21 If the City made available smaller containers at a lower price than the regular-sized bins, and if the bins had lids that sealed tight that you could use for taking your food waste to the curb for pick-up, how likely are you to sign up for City pick-up service for food waste? Is your household:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

IF "YES" TO "COMPOST AT HOME IN Q B1 (b1.4), CONTINUE. ALL OTHERS SHOULD SKIP TO Q B 27.

B22. You mentioned that you (also) have a compost bin or pile at home that you use for composting some food scraps. Does your household currently use any type of outdoor bin or container for composting these food scraps?

a. Yes (CONTINUE)
b. No (SKIP TO Q B24)
c. DK/REF (SKIP TO Q B24)

B23. What type of bin do you have? Do you have a food waste composting bin or container that you purchased or received from the City?

a. Yes (CONTINUE)
b. No (SKIP TO Q B25)
c. DK/REF (SKIP TO Q B25)

B24. What type of bin do you have from the City? Is it a:

a. Green cone
b. Worm bin
c. Or, is there a better description? (specify)
d. DK/REF

B25. Thinking about the next year or so, how likely are you to continue composting (at least part of) your food waste in these types of outdoor compost bins at home? Would you say you are:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely (SKIP TO Q C1)
e. Not at all likely (SKIP TO Q C1)
f. DK/REF (SKIP TO Q C1)

B26. As you may know, the City of Seattle has a program to distribute bins for composting food scraps at home. These bins are green plastic cones that stand about two and a-half feet tall. If the program was available within the next year or so, how likely would you be to purchase a (new) food waste composting bin or container from the City if it was available for $25? Would you be:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

IF "NO" OR "DK/REF" TO COMPOST AT HOME (B1.4) CONTINUE. ALL OTHERS SHOULD SKIP TO INSTRUCTIONS BEFORE B 32.

B27. I understand that you do not have a special bin or area at home right now where you are composting food waste. Even though you may not be using it, does your household own any kind of bin or container that is designed for composting food waste at home in your yard if you wanted to? Please do not include the yard waste container that you take to the curbside if you have one.

a. Yes (CONTINUE)
b. No (SKIP TO Q B 30)
c. DK/REF (SKIP TO Q B 30)

B28. What type of bin do you have? Do you have a food waste composting bin or container that you purchased or received from the City?

a. Yes (CONTINUE)
b. No (SKIP TO Q B 30)
c. DK/REF (SKIP TO Q B 30)

B29. What type of bin do you have from the City? Is it a:

a. Green cone
b. Worm bin
c. Or, is there a better description? (specify)
d. DK/REF

B30. Thinking about the next year or so, how likely are you to start making some of your own compost by depositing your own food scraps at home on your property? Would you say you are:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely (SKIP TO Q C1)
e. Not at all likely (SKIP TO Q C1)
f. DK/REF (SKIP TO Q C1)

B31. As you may know, the City of Seattle has a program to distribute bins for composting food scraps at home. These bins are green plastic cones that stand about two and a-half feet tall. If the program was available within the next year or so, how likely would you be to purchase a (new) food waste composting bin or container from the City if it was available for $25? Would you be:

a. Extremely likely
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

IF "NO" OR "DK/REF" TO CITY PICKUP (B1.3) AND TO BACKYARD COMPOSTING (B1.4), CONTINUE. ALL OTHERS SHOULD SKIP TO Q C1

Asked of those who do not compost food waste either at curbside or in backyard.

B32. Did you know that food waste can be composted?

a. Yes (CONTINUE)
b. No (SKIP TO Q C1)
c. DK/REF (SKIP TO Q C1)

B33. For what reasons have you decided against composting your food waste in your back yard at home?

_____

_____

_____

Section C – Awareness and Use of City Programs

(Asked of everyone)

C1. Now about some programs that the City of Seattle offers. The City of Seattle has a Natural Lawn and Garden hotline that you can call to ask questions about gardening and yard care. Have you ever heard of Seattle's Natural Lawn and Garden hotline?

a. Yes (CONTINUE)
b. No (SKIP TO Q C4)
c. DK/REF (SKIP TO Q C4)

C2. Have you, or has anyone in your household, ever called this hotline?

a. Yes (CONTINUE)
b. No (SKIP TO Q C4)
c. DK/REF (SKIP TO Q C4)

C3. In the past five years or so, how many times in total have you or someone in your household called the Natural Lawn and Garden hotline?

_____ # of times
99: DK/REF

C4. (Given what you know about it) How likely are you, or someone in your household, to call this hotline in the next year or so? Would you say you are:

a. Extremely likely to call it
b. Very likely
c. Somewhat likely
d. Not very likely
e. Not at all likely
f. DK/REF

C5. The City has volunteers, called Master Composters, who can staff events, make presentations and answer questions about composting. Have you ever heard of the Master Composters?

a. Yes
b. No
c. DK/REF

Section D – Demographics

D1. The next questions are for classification purposes only. What is your age please? Are you:

a. Under 25
b. 25 – 34
c. 35 – 44
d. 45 – 54
e. 55 – 64
f. 65 or older
g. DK/REF

D2. Do you own or rent the home you live in?

a. Own
b. Rent
c. Other
d. DK/REF

D3. What is your home zip code?

9 8 __ __ __

D4. Including yourself, how many people currently live in your household?

a. One (SKIP TO Q D6)
b. Two
c. Three
d. Four
e. Five
f. Six
g. Seven
h Eight or more
i. DK/REF

D5. And how many of those are over 18 years of age?

a. One
b. Two
c. Three
d. Four
e. Five
f. Six
g. Seven
h Eight or more
i. DK/REF

D6. What is your racial or ethnic background? Are you:

a. Caucasian / White
b. African American
c. Asian
d. Latino/Hispanic
e. American Indian
f. Other (specify)
g. Mixed (specify)
h. DK/REF

D7. What is the highest level of education you have had the opportunity to complete?

a. High school graduate or less
b. Some college / Technical school / AA Degree
c. 4-year college degree
d. Post graduate work/degree
e. DK/REF

D8. And finally, into which of the following categories did your household's total annual income for 2004 fall? Was it:

a. Under $30,000
b. $30,000 - $50,000
c. $50,000 - $75,000
d. $75,000 - $100,000
e. $100,000 - $150,000
f. $150,000 - $200,000
g. $200,000 or over
h. DK/REF

D9. Record gender:

a. Male
b. Female

That concludes our survey. Thank you very much for your time and opinions. These answers will be very helpful.