

Recycle Right® advertising campaign MARKET RESEARCH HIGHLIGHTS





CONTENTS

Introduction	3
A note about the research method	3
Bin system and Recycle Right® recall	4
Claimed behavior changes	4
Perception and objective knowledge of recycling	5
Barriers to recycling	5
The 'thumbs' campaign	5
Bin behavior and objective knowledge about recycling	6
Biggest improvements in knowledge	6
E-Waste and soft plastics	6
Areas of knowledge needing improvement	6
Overall knowledge groups	7
Perception vs actual knowledge	7
Observed rates of contamination and poor recycling practice	8
Conclusion	8
Appendix 1 - press advertising 2013-2014	9





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INTRODUCTION

The Recycle Right® household education program aims to increase awareness about recycling correctly and to reduce contamination in kerbside collections.

The program was developed by Zero Waste SA, in consultation with the recycling industry in 2009-10, in response to long-standing issues regarding 'contamination'. 'Contamination' refers to the practice of householders with kerbside-collected recycling bins placing materials in the incorrect bin or incorrectly preparing materials for recycling.

Benchmark research undertaken by Zero Waste SA in 2006 and 2008 indicated that attitudes, behaviour and knowledge of recycling had remained almost static reflecting a need to provide information to improve understanding about recycling and a catalyst to improve recycling behaviour and support the efforts of councils in this task.

The Recycle Right® program uses diverse communications channels, reflecting market research findings and budget allocations. The core elements include a 1300 telephone hotline, tours of recycling and waste facilities for council staff and elected members, downloadable resources for councils to use from web banners and a library of icons representing 40 different materials, fact sheets, press advertising, calendars, banners and teaching resources.

The campaign has run since 2010 and research has been conducted in 2010, 2012 and 2014 by the Ehrenberg-Bass Institute to assess its effectiveness. This was achieved through identifying:

- recall of the campaign amongst South Australian householders
- improved knowledge about which bin should be used for the disposal of common contaminants (e.g. oven glass should not go in the recycling bin)
- improved process-oriented knowledge about recycling (how items should be prepared for recycling, e.g. rinse cartons and bottles before disposal)
- contamination and poor practice levels in the three bin system by using an observational method.

In 2013 campaign messages around food scraps and hazardous waste disposal were added to the existing green organics and recycling themes.

The campaign elements tested in 2013-14 ran from July 2013 until the end of April 2014 and were delivered primarily through print media and flyers distributed through councils.

This summary focuses on the 2014 research findings where 340 telephone surveys and 305 observational audits of kerbside bins were undertaken. Some bin audits (n=105) were undertaken with a subset of willing survey participants who opted in at the end of the phone interview.

The additional random kerbside audits (n=200) were undertaken to boost the sample. The telephone interviews covered regional and metropolitan areas. The bin audits, because of logistics, occurred in metropolitan and peri urban areas only.

A NOTE ABOUT THE RESEARCH METHOD

By Associate Professor Anne Sharp Ehrenberg-Bass Institute for Marketing Science

Waste is a difficult issue to research well. There is a strong likelihood that respondents will not have accurate recall of their own behaviour and this raises method challenges. Additionally, there are many indications that self-reported data may not reflect actual behavior well, particularly in relation to discard and waste. In other words, what people say they do, and what they actually do, can be quite different. Respondents may not wish to reveal their behaviour, may not remember or be fully conscious of their actions, or may define a behaviour differently. Even simple selfreports of behaviour are more likely to reflect the respondents' attitudes rather than their actual behaviour.

Research studies from the environmental psychology, public health and behavioural sciences have informed the method developed to measure the *Recycle Right*® campaign.

Of note is that householders are, to some extent, unaware that they are behaving the "wrong" way. Therefore, the use of self-report measures such as a telephone survey is only going to give insight into respondents' perceptions of their own behaviour.

Objective knowledge tests and visual bin inspections (such as looking in the recycling bin to identify any visible contaminants) are superior measures that need to be built into the research when assessing actual change. This method is used in the Recycle Right® campaign evaluation market research.

BIN SYSTEM AND RECYCLE RIGHT RECALL

Respondents were asked whether they could recall any advertising, or had received any information about their recycling, green organics, or waste bins in the prior 10 month period, which covered the period of the 2013-2014 campaign. Half of the respondents (51%) believed they had seen messages about their bin system. This result is higher than previous years (27% in 2012) and suggests wider communication/coverage in the general media and by councils on the topic, outside of the *Recycle Right*® campaign.

Unprompted and prompted *Recycle Right*® campaign recall levels by all respondents were similar to, but slightly higher than, those seen in 2012:

22% total unprompted campaign recall (15% in 2012)

prompted campaign recall (21% in 2012)

48% total campaign recall (36% in 2012)

TOTAL CAMPAIGN RECALL

The total campaign recall of 48% is an extremely positive finding in light of the modest campaign budget and the limited use of media to create cut-through and reach. It shows the increasing build and reach of this householder campaign over time.

CALENDARS, WEBSITE, PHONE

Respondents were asked if they had received a calendar from their council about recycling in the last 12 months. 2014 saw high levels of calendar recall (64% total recall).

A greater proportion of respondents also claimed contact with either the Zero Waste SA website or phone line (2% in 2012, 13% in 2014). These too are both positive findings in terms of exposure to and engagement with the program.

RESIDE COLLECTION CALENDAR 2013-2018 KERNSIDE COLLECTION CALENDAR 2013-2018 WANTER MATERIA MATERIA

Council recycling calendars funded through the Recycle Right® campaign.

CLAIMED BEHAVIOUR CHANGES

Respondents that recalled the *Recycle Right*® campaign (n=164) were asked whether they had disposed of any items differently since campaign exposure.

Over half of the respondents (55%) stated that they had not changed their behaviour. This is comparable to the 53% in the 2012 research. In addition 12% of respondents said that their behaviour had not changed because they were doing everything correctly already.

GREEN ORGANICS

The key claimed behaviour change was around green organics material – a new theme in the campaign during 2013-2014.

32% said they were now only putting organic material in the green bin and 17% said they were now putting food scraps in the green bin.

All other disposal behaviours saw far more modest levels of claimed change, but this is primarily because the respondents stated (self-assessment) that they were already doing the behaviour the campaign is seeking.

These findings show that the campaign had cut through in its key messages with at least some respondents who needed to make a behaviour change. It has also refreshed and reinforced the message amongst those already doing the desired behaviour.

PERCEPTIONS AND OBJECTIVE KNOWLEDGE OF RECYCLING

Householders' general outlook on recycling was overwhelmingly positive, indicating a population that is receptive to "doing the right thing" in terms of recycling and waste disposal.

Very few respondents felt that their recycling efforts were not worthwhile (2%) and the vast majority of householders felt their efforts did make a difference (93% agreement).

This indicates that improper recycling practices are likely to result from incorrect knowledge or poor habits rather than people not thinking the activity is worthwhile.

Prior to the *Recycle Right*® campaign, a high mean level of agreement of 8.3 out of 10 was seen for the statement "I have been given sufficient information about how to use the three-bin system properly" (where "0" was "completely disagree" and "10" was "completely agree" with the statement). The mean rating declined slightly over the *Recycle Right*® campaign, with 7.9 in 2012 and 7.7 in 2014.

However, this finding shows that the majority of respondents still feel they have been given sufficient information about their bin system. Incorrect bin use is not likely to be attributed to respondents feeling that they do not have access to the information needed to use the system properly. However, this does not mean communication is no longer needed.

There is a need to refresh and reinforce the bin usage messages and to also build reach amongst those who have not yet had campaign exposure. Memory structures erode over time and, coupled with the fact that what goes in each bin changes with technology and infrastructure, there is a need for continued communication with householders to both maintain and improve bin usage knowledge.

BARRIERS TO RECYCLING

Respondents were asked if there was anything that was stopping them recycling as much as they would like. Seven in 10 respondents did not perceive any barriers to recycling. The key perceived barriers were the capacity or frequency with which bins were collected (12% of respondents stated this as a barrier). Lack of information was perceived by only 5% of respondents, reinforcing the prior finding that the majority of respondents feel well informed. This could potentially present a challenge to any recycling campaign aiming to achieve cut-through and educate households.

If householders think they already know how to recycle correctly and that there are no barriers, they will be less likely to pay attention to communication about recycling as they do not feel it is relevant to them. Messages will need to be innovative and have good creative elements to address this issue.

THE 'THUMBS' CAMPAIGN

The 2013-14 Recycle Right® campaign used 'thumbs up' and 'thumbs down' press advertising, calendars and pull up banners.

Advertising was expanded to support household hazardous waste collections. Thumbs up and down advertisements were created to support diversion of oil, batteries, paint and compact fluorescent lights (CFLs) from hazardous waste collections which were placed statewide in all papers during October 2013 and re-run in local papers in areas in the lead up to a mobile hazardous waste collection.

Supporting material included an email footer, fact sheets and flyers of which 300,000 were distributed across 20 of the councils participating in the hazardous waste collections.

See Appendix 1 for the complete series of press advertisements used in 2013-14.



Shopping centre banners reinforced messages used in the press advertising campaign.

BIN BEHAVIOUR AND OBJECTIVE KNOWLEDGE ABOUT RECYCLING

Respondents were asked, in general, how they managed their recycling. The results show that six in 10 do their recycling separation inside the home, prior to disposal. Four in 10 visit the recycling bin as items are generated. Very few lack an approach or do separation of waste and recycling at the actual bin.

Presenting bins for collection when they are not full incurs unnecessary costs for councils. Seven in 10 respondents said they present their bin at each collection rather than just when it is full. There is an opportunity to educate people that bins are better presented only when at capacity, rather than at every collection opportunity.

RECYCLING KNOWLEDGE

For a more objective assessment of recycling knowledge, householders were read a list of items and asked to indicate where they would dispose of each (into the general waste bin, the recycling bin, the green organics bin, or somewhere else). The correct disposal behaviour of a number of items improved from the 2010 benchmark research.

BIGGEST IMPROVEMENTS

The biggest improvements in correct claimed disposal behaviour from 2010 to 2014 were seen in the areas of:

- Dirt, bricks or rocks (52% correct in 2010, 75% in 2014)
- Crockery, oven glass or drinking glasses (41% correct in 2010, 57% in 2014)
- Polystyrene foam (65% correct in 2010, 74% in 2014)
- Clothing or fabric (73% correct in 2010, 81% in 2014)
- Garden implements (64% correct in 2010, 71% in 2014)

Respondents were also asked a series of procedural questions about how they might prepare items for disposal and whether they would do these things "always", "sometimes" or "never". Overall, results were positive. Only 7% of respondents claimed to "never" rinse bottles and cartons while just 4% "never" remove lids from jars and bottles. For these items, over three quarters of respondents claimed to consistently ("always") prepare them for disposal in the correct manner.

E-WASTE AND SOFT PLASTICS

As a new question, respondents were asked about their disposal of e-waste as during the campaign e-waste was banned from landfill. Over half of the respondents (55%) claimed to have used either a council collection or specialist e-waste collector (or both) to dispose of electronic goods. Few (6%) said they still used a dump or put it in their waste bin. There are high levels of new behaviour (i.e. not sending to landfill via the waste bin) occurring in relation to e-waste disposal.

Soft plastic recycling is also growing, with 19% of respondents claiming to have used the Coles' recycling service. Note that this question was specific to Coles, although other supermarkets provide this option.

AREAS FOR IMPROVEMENT

Items still showing room for improvement were:

- Crockery, oven glass or drinking glasses (32% incorrect disposal in 2014)
- Polystyrene foam (24% incorrect disposal in 2014)
- Dirt, bricks or rocks (25% incorrect disposal in 2014)
- Garden implements (27% incorrect disposal in 2014)
- Plastic bags (21% incorrect disposal in 2014)
- Clothing or fabric (14% incorrect disposal in 2014)
- Pizza boxes with food (25% incorrect disposal in 2014)
- Soft plastics (10% incorrect disposal in 2014)



OVERALL KNOWLEDGE GROUPINGS

When analysed as a total score across all objective knowledge questions, there was a modest improvement following the 2014 campaign. To allow further analysis based on objective recycling knowledge, respondents were divided into three segments based on their individual responses to the battery of objective knowledge questions.

The respondents were grouped as follows (shown in Table 1):

- the best group of respondents gave between zero and 1.5 incorrect answers
- the mid group of respondents gave between two and four incorrect answers
- the worst group of respondents gave 4.5 or more incorrect answers.

The "best" group has grown again in size in the 2014 research compared to the benchmark research, now comprising of more than one half of all respondents (22% in 2010 and now 55% in 2014, p<0.00).

The "worst" group has also decreased (31% in 2010 and now 10% in 2014, p<0.00), which is a very positive sign. No demographic variables such as education, age, income, household type, or employment status showed statistically significant relationships with the overall knowledge segment membership.

While respondents in the "best" group were more likely to agree that their recycling efforts were worthwhile and that they had been given sufficient information about their bin system, these differences were not great enough to be statistically significant. In the benchmark study, the levels of agreement with these statements were also not significantly affected by whether respondents were in the "best" or "worst" group, which highlights the limitations of self-assessments of knowledge.

PERCEPTIONS VS ACTUAL KNOWLEDGE

Perceptions of competence in using the kerbside-bin system are not always grounded in actual knowledge. This is also apparent in that respondents who answered several questions incorrectly were still highly confident in their knowledge of the kerbside-bin system.

This is not necessarily surprising given that waste disposal behaviours are habitual and occur in the home, resulting in little opportunity for feedback when they are performed incorrectly. It does, however, present a significant challenge in gaining cut-through with recycling communications; a belief that one's recycling knowledge is already sufficient provides no motivation to attend to new pieces of information (particularly when they are delivered in a passive manner such as a letterbox drop).





Table 1: Overall knowledge groupings	Benchmark 2010		2012		2014	
	n	%	n	%	n	%
Best group (0 – 1.5 incorrect)	75	22	153	36	186	55
Mid group (2 – 4 incorrect)	163	47	182	42	119	35
Worst group (4.5+ incorrect)	108	31	94	22	35	10
Total	346	100	429	100	340	100

OBSERVED RATES OF CONTAMINATION AND POOR RECYCLING PRACTICE

All audits in the 2014 research were completed during a one month period. Bins were audited as close as possible to the council collection day to ensure they would contain the majority of what was to be sent into the various waste and recycling streams. In 2014, a total of 215 recycling bins were audited, 62 green organics and 285 waste bins.

BIN AUDIT RESULTS

The demographic characteristics of opt-in bin audit participants (n=105) quite closely match those of the telephone survey. Respondents that completed a telephone survey and opted into the bin audits held the same level of agreement about believing they have received enough information to be able to use their kerbside-bin system properly and their belief that their recycling is worthwhile. This is evidence that the audits were not just opted into by those who felt they needed more knowledge or those who were more engaged with the topic (through feeling their efforts had a greater impact). Given the respondents that participated in the bin audits have similar attitudes towards recycling than non-participants and that their observed knowledge skills were no different, it is reasonable to assume that the level of contamination present in the bins audited would be the same as is present in the bins not audited.

Six in 10 (61%) recycling bins had either visible signs of contamination (i.e. contained some non-recyclable items) or poor recycling practice (e.g. bottles still had lids attached). This is a significant drop from the 2012 research which showed higher levels (86%). From the bin audits it is clear that the key behavioural challenge for recycling bins is both contamination and poor practice.

The main items incorrectly disposed of continue to be soft and mid-strength plastics and the key poor practice is the leaving on of lids on bottles and containers or having loose lids in the recycling bin.

GREEN BIN AUDITS

The green bin audits showed 7% contained items that were not green organics. This result is lower than the 2010 and 2012 audits (25% and 15% respectively). This too is a positive finding. Given the rate of contamination in audited green organics bins was significantly less than that seen in recycling bins (43% for recycling bins c.f. 7% for green organics bins, p<0.00), it suggests that householders find it easier to distinguish between items that can or cannot go in the green organics bin than they do between items that can and cannot go in the recycling bin.

WASTE BIN AUDITS

Half of the waste bins (51%) contained items that should have gone in the recycling or green organics bins. This is an increase on 2012 (33%). That said, the items that can go into other waste streams have changed across the course of the research. This indicates that some households do not make the effort to separate items that could be reused. Food scraps especially have had a change in how they are disposed of by households over this time. This finding highlights the need to remind households as bin usage changes over time.

CONCLUSION

Demographics of the respondent did not influence bin behaviour. Better knowledge of correct disposal behaviour also did not have a significant impact on contamination of the households' bins. This lack of relationship was also found in previous years.

These findings highlight the importance of continuing to build mental links between knowledge and behaviour, as bin disposal behaviour is habitual and thus hard to change. Bin disposal behaviour is also not a socially visible behaviour and it does not have an immediate feedback loop for the householder to have correct behaviours reinforced¹. Again, the lack of social visibility means it may take some time to shift entrenched behaviours. The situation is also made complex by multiple people in the household (not always the survey respondent) using the bin system.

Overall, the research has found that correct knowledge is increasing and this is an important first requirement for behaviour change to be possible. The challenge is to work on ensuring this translates into improved behaviour. There may be a lag in this, which is what we are seeing in the results.

The Recycle Right® campaign can be said to have achieved good recall given its modest budget and since 2010 there has been an improvement in the objective knowledge about correct disposal of key campaign message items.

However, actual disposal behaviour evidenced through the recycling bin audits, still shows significant room for improvement and remains the key challenge for the future.

¹ Bin tagging is a successful method to translate improved knowledge into improved behaviour.

APPENDIX 1 - PRESS ADVERTISING 2013-2014

Yellow 'thumbs' ads



RECYCLE RIGHT



washing the dishes.

For a **RECYCLE RIGHT** fact sheet visit zerowaste.sa.gov.au or call 1300 137 118.













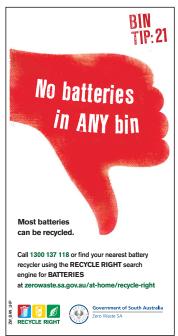




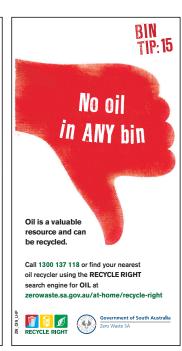




Red and purple 'thumbs' ads



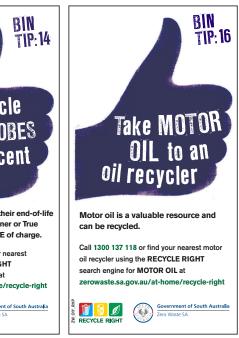






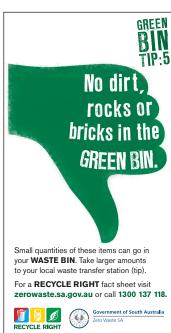






Green 'thumbs' ads









'Good to Go' ads



All food scraps can go into the green organics bin. For helpful tips on recycling your food scraps go to: zerowaste.sa.gov.au







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