

INSTITUTE FOR SUSTAINABLE FUTURES

ISF: FOOD WASTE TRIAL RESIDENT FEEDBACK

For Woollahra Municipal Council 2007



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TECHNOLOGY SYDNEY

FOOD WASTE TRIAL:
Results of resident feedback workshop

Final report

For Woollahra Municipal Council

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1 Introduction

1.1 Background

Woollahra Municipal Council began a food waste collection trial in September 2006 with approximately 2,400 households in the LGA. During the trial, participating households were able to place all kinds of food waste into their garden waste bin (with their normal garden waste). To assist them to do this, Council provided all households in the trial area with a kitchen tidy bin in which they could collect food scraps.

1.2 Workshop structure

After four months of the trial, residents were invited to attend a workshop to provide their feedback on the trial. The workshop was facilitated by Emma Partridge of ISF, and was held on the evening of Wednesday 14 February, at the Gunyah (Vaucluse Scout Hall), Watson's Bay. The workshop ran for one hour and was attended by thirty-eight (38) local residents who had participated in the trial.

The main component of the workshop was a facilitated group discussion about the trial. Participants were invited to make comments about the trial, and these were recorded on butcher's paper. Participants were assured that Emma Partridge would compile their comments into a report to be provided to Woollahra Council.

The facilitator structured the discussion by using a series of trigger questions to ensure coverage of all aspects of the trial, and to draw out detailed comment on a number of specific issues. This discussion session elicited numerous constructive comments and questions from participants, which were all recorded.

Following the discussion, Emma Partridge gave a short PowerPoint presentation to the group, outlining the results of the residents survey that had been conducted by Council approximately one month prior. The PowerPoint presentation is at Appendix A.

The comments made and questions asked by the residents at this feedback workshop have been collated and are summarised in this report. Actual quotes from residents are in italics, and other comments have been summarised or paraphrased.

2 Residents' comments

Participation in the trial

Overwhelmingly, the residents who attended the workshop were active participants in the trial. Furthermore, they were participating regularly, placing food scraps into their green bin every week. Approximately half those attending were putting all kinds of food into the bin, while the other half were putting most things in, but not including meat products.

Only a few residents reported that they were not participating – these were people who had tried the service at the beginning of the trial but stopped because of problems with smells. One commented that the only way to stop the smell was to wrap food in quite a few layers of newspaper, and she was *'worried about using too much paper, because I thought you were only allowed to put a little bit in the bin'*.

It is to be expected that most of those attending a workshop such as this will be residents with an active interest in participating in and supporting the trial. However, when asked whether they thought their neighbours were participating, many people said no. A couple of people who lived in apartment blocks said *'I'm the*

only person in my block who is doing it', and other people also referred to neighbours who were clearly not participating.

When asked why they thought some of their neighbours were not participating, some said they thought it was because of a perception that the process would be unpleasant; *'they think it will smell'*. Others gave reasons why people living in apartment blocks in particular were not participating, including because *'they are more careless'*, or because they were elderly and found it difficult to go up and down stairs often enough to empty their kitchen bin. Others thought that with shared bins in unit blocks, there would be a large volume of waste that would be more likely to smell, and people would be less likely to keep the shared bins clean.

Many people thought that a major reason some residents were not participating is that they still did not understand or appreciate the reason for recycling food waste. One person thought that many people *'don't understand the consequences'* of throwing their waste into the garbage – they don't realise that making the effort to recycle it instead is *'just like turning off the light switch'*.

Many people agreed that there was still a great need for education on the issue in order to encourage more people to change their behaviour.

Others thought that some people might be cynical about the process - one person had been told by a relative that *'it's not really recycled, it just goes to a different pile at the landfill'*.

Level of support for the trial

Residents who attended the workshop were overwhelmingly in support of the trial continuing. They had a good understanding of the reasons for the trial, and were extremely supportive of it in principle. One person stressed that *'this trial is reducing landfill by 50% and that is the main thing we should focus on'*.

The process was not without its problems for residents (see below), but these were strongly outweighed by a seemingly unanimous desire for the service to continue. Furthermore, a number of suggestions were made for possible improvements to the service, and for ways to encourage higher levels of participation (see below).

Problems with the trial

A number of problems were mentioned. The main problem was odours associated with the kitchen bin and/or the green bin. Some people also mentioned problems with pests, and some mentioned inconvenience.

➤ Odours

Quite a number of those attending the workshop found that the system was quite smelly, and stated that this was a problem for them and/or their neighbours. Some found it *'revolting'*, and thought that the smell of loose or even newspaper-wrapped scraps in the green bin was *'much worse'* than that of similar items tied in plastic bags in their garbage bin. One thought it was a problem with the design of the bin – either that it was too large (for those without gardens), or that its lid *'does not seal well enough'* to keep odours in. Another thought the smells indicated that a week was too long for the material to be sitting loose in the bin.

However, there was wide variation in whether people experienced smells or not. While many clearly did, and found it problematic, others indicated that odour was not a problem at all. A number said *'it doesn't smell'*, or *'it's really not a problem'*. There was also a wide range of attitudes towards smells. Some people said it was *'disgusting'*, while others said *'all bins smell'*, or *'it's no worse than in the garbage bin'*, or

'it just smells like my compost'. Others were simply less concerned about the smell, with one stating *'once you realise you're doing something good you learn to love the smell'*.

Many of the residents had found ways to prevent or minimise any smells – most notably by layering their garden waste (grass clippings and leaves) on top of their kitchen waste. In fact, it was fairly clear that those residents who had plenty of garden waste to mix in with the food waste generally did not have problems with smells. Many agreed that *'when you cover it with leaves and grass, it doesn't smell'*. This was the case even for those who just put the scraps into the bin loose; for example, one said *'I never wrap it in paper, I just throw some leaves over the top and it's fine'*.

On the other hand, many residents who did not have garden waste to mix into the bin (for example, those who lived in units) had major problems with smells and mess. One said, *'if you don't have green waste, just food on its own in the bin is revolting'*. Another noted that without garden waste to mix in, the food waste *'turned to liquid in the bottom of the bin'* which caused unpleasant odours.

Residents mentioned a number of techniques they were using to minimise smells. Some had *'lined the bottom of their green bin with sheets of newspaper'*, or *'scrunched up balls of newspaper'* which reportedly helped to absorb liquid and reduce odours. Others had wrapped any scraps in several sheets of newspaper before putting them into the bin. A number had also sprinkled bicarbonate of soda into the bin, and found this to be helpful in reducing odours. Another reported *'I sweep up the leaves from my neighbour's tree and put those in the bottom'*, adding that *'I used to curse the tree, but now it's really useful!'* Others reported putting odorous food in the fridge or freezer until collection day, so that it was not in the green bin for too long, and did not cause smells. This was not seen as a particularly convenient solution however, particularly *'when you forget to get them out of the fridge'*.

One person asked whether the green bin could be collected more frequently – perhaps twice a week – in order to help prevent odours.

➤ Pests

Quite a number of residents had experienced problems with pests, most notably small flies. These had been found to gather around both the kitchen tidy bin and the large green bin. One person also mentioned that ants were attracted to the kitchen tidy bin.

These kinds of pests were commonly found to be a nuisance. Some people found it very difficult to deter them, even when the food was wrapped in newspaper. However, others found them less of a problem if they did not include meat waste in the bin. One person suggested people could get a fruit fly trap to hang near their bin.

➤ Inconvenience

Some people found the system inconvenient. The small size of the kitchen tidy bin provided by Council was noted as a drawback by some. These people found that it became full too quickly and needed emptying too often – *'sometimes several times a day'* – for it to be convenient. However, many people were getting around this problem by using their own, larger container.

Another person said that she kept her green bin in the garden in order to collect garden waste, but that this was a fair distance from the kitchen, so taking the food waste out to it on a regular basis was quite inconvenient. Similarly, for those who lived in apartment units, taking material to the bin often involves going up and down stairs, which some people considered inconvenient. Taking food waste to the outside bin appeared to be more inconvenient than taking garbage because food waste needed to be taken out more often.

Another resident noted that without garden waste, the food waste in the green bin turned to liquid and made quite a mess that was *'difficult to clean out'* after the bin had been collected.

Assessment of the impact of the trial on volume of garbage

The great majority of participants found that their red bin was *'much less full'*. One said *'I can leave it for a few weeks before I need to put it out now'*. A number expressed surprise at how much the volume of garbage in their red bin had reduced since the beginning of the trial.

One person estimated that the volume of material in their red bin had been *'reduced by 50%'* because of the new service. Many people agreed with this estimate, or suggested that the figure might be even higher.

Kitchen tidy bin

Residents had mixed comments about the kitchen tidy bin. Some found it very convenient, and a *'perfect size'*, while many others found it *'far too small'*. About two-thirds of the group were using the bin supplied by Council, while the rest were using their own (larger) container. It appeared that people in a one-person household were happy with the supplied bin, while those in a household with two or more people found that they needed a larger container.

One person noted that one of their neighbours had initially been confused, and thought that the kitchen tidy bin itself should be placed out for collection.

Comments about the trial compared to composting

A number of people at the workshop had used a home compost bin or worm farm before the trial. Of these, one person had stopped composting and switched to the new system, finding it *'more convenient'*, because *'in reality I just don't have time for gardening'*.

The others indicated that they were still committed to home composting and had continued to compost during the trial, but had appreciated being able to put non-compostable things into the new bin (such as meat). For the people who wanted to continue composting, the two systems were seen to be complimentary.

One person noted that she had recently moved from a house to a flat and *'really missed being able to compost'*, and *'felt terrible throwing everything away'*. Consequently, she was extremely happy about the trial as it gave an alternative means to recycle her food waste.

People thought that the food waste collection system was more attractive than traditional home composting, because it was a single system that could cope with a wide range of items.

Miscellaneous comments

A number of people were interested in knowing *'where does the material go?'*, and wanted the recycling process explained in more detail. When it was explained to them, there was general agreement that this information should be more widely publicised in order to help more people understand the benefits of recycling food waste, and encourage them to participate.

A number of people argued that the issue was *'really all about our mindset'*. One person suggested that many overseas countries are *'more advanced than us'* in terms of how they think about recycling. She related her experience of visiting Germany and finding that, not only were there better facilities for recycling – *'different kinds of bins*

everywhere, but that people had a different attitude – *'everyone is expected to recycle everything and they really disapprove of people putting things in the wrong bin'*.

Another person had experience working with young children, and suggested that *'they have a much better attitude'* towards environmental issues, and were *'often better than adults'* at separating different kinds of materials for recycling.

Ideas for Council

Residents at the workshop made a number of constructive suggestions for ways in which Council could improve the service, and increase participation rates.

Suggestions are summarised here, grouped under relevant headings.

1. Provide more publicity, information and education about the service

Many people in the group, while participating in the trial themselves, were aware that many of their neighbours were not participating, and were frustrated by this. There was general agreement in the group that Council *'should educate people more'* as a means of encouraging a greater level of participation.

A number of suggestions were made about how to do this – from *'working with schools to teach children – then they can influence their parents'*, to promoting the service in a Council newsletter, or mailing out a leaflet (although many people acknowledged that this may be ineffective as *'most people don't read junk mail'*). Stories in the local newspaper were also suggested.

One person asked *'are our local politicians participating?'*, and some people thought that they could play a role in promoting the service and setting an example to residents.

Greater information and education about the environmental reasons for the trial, and the benefits of recycling food waste was thought to be particularly important – as one person said *'most people just don't think about it'*. People in the group seemed very interested in where the waste goes, and the process of recycling it, turning it into fertiliser and generating electricity. It was suggested that if more residents understood this process they would be more likely to see the point of participating.

There was also a suggestion that some people needed greater incentives to participate, *'like a rebate on the rates'*.

2. Consider specific ways to increase participation by unit residents

Many people thought that residents in apartment blocks faced particular issues that might make it difficult to participate. These included:

- shared bins that often get contaminated with the wrong materials
- lack of garden clippings to mix in with food waste, increasing the problem of bad odours / pests
- lack of suitable places to store bins – meaning any odours were a particular problem
- stairs that make it inconvenient to go up and down to empty waste regularly

These issues meant that people wanted Council to think about how to *'improve the system for people in units'*. Working with strata managers to explore ways of doing this was one suggestion.

Many people also thought that Council should develop specific information and education materials to *'target people in units'*.

3. Provide a list of 'tips' for those who are participating

Residents suggested that additional information, particularly a list of 'helpful hints' or tips on using the service, would be useful – both to improve the experience for those people who are already participating, and to encourage other people to try it.

As noted above, residents in the workshop had discovered a range of techniques that they were employing to improve the service, including ways to minimise smells, mess and pests. A number of people suggested that Council could collate these ideas and tips and make them available to all residents. Information about where to obtain biodegradable bags was also requested (see below). It was also suggested that Council prepare a list of common questions, with answers, and provide it to residents. Suggestions included *'how much newspaper is it OK to put in?'* and *'where does the waste go?'*

4. Investigate biodegradable bags

A number of people mentioned that they had heard about *'biodegradable bags that break down'*, but had not been able to find any for sale, and did not know where they could get them.

Many people were interested in this option, agreeing that bio bags would be a useful and convenient way to contain the food waste inside the bin, and might help prevent odours more effectively than wrapping scraps in newspaper. There was a general request that Council look into the availability of these bags, preferably in different sizes to suit different sized bins.

One suggestion was that Council could provide information about the bags, and tips on where to buy them, or could even buy them in bulk and sell them to residents at cost price to encourage participation. Many people agreed with the person who said *'I'd be quite prepared to buy them'*, noting that they had to buy their own rubbish bags anyway.

5. Investigate provision of different sized bins

Some people commented that the green bin was too large for people who were not gardeners, and suggested that Council look into the option of providing smaller sized bins for these people, to enable them to participate in food waste recycling without needing to have a large bin.

Another suggestion in relation to the large bin was that a design modification to create a *'lid with a better seal'* might help to keep flies out. One person suggested *'a rubber seal around the lid'* might be an improvement.

As mentioned above, many people found the kitchen tidy bin too small, and suggested that Council provide a choice of different sized bins for the kitchen. However, it should also be noted that many people were already using a larger container of their own and/or thought that people should just buy a larger container themselves if the Council-provided kitchen bin was too small.

3 Conclusion

3.1 Summary

The responses of residents at the feedback workshop suggest that there is a very high level of support for Woollahra Council to continue the organic/food waste recycling service on a permanent basis.

Residents clearly understood the reasons for and benefits of the trial, and were generally participating on a regular basis. Most residents reported a significant reduction – the consensus was around 50% - in the volume of waste now ending up in their garbage bin. Many residents were impressed that Council was 'taking a lead' in this area, and were grateful to be given a means to 'do their bit' to reduce landfill.

There was also a feeling that Council should undertake increased promotion, information and education activities in an attempt to encourage or persuade more residents to participate in recycling their food waste.

While residents were actively participating in the trial, a number were also experiencing some problems with the process – most notably problems with odours, mess and pests (flies). For some people these problems were very minor, while for others they were quite off-putting. In general, it seemed to be people who did not have access to garden waste to mix in with their food waste, and particularly people who lived in unit blocks, who were experiencing these problems.

Many people requested ideas for how to prevent these problems, and/or wanted the process modified in some way to prevent them. The feeling among residents was that improvements to the process would encourage those who try the service to persevere with it. A number of suggestions were made for actions Council could take, and these are likely to be highly valuable to Council as it looks for ways to build on the initial success of the trial and improve the level of resident participation.

3.2 Limitations of the workshop

It should be acknowledged that residents attending this workshop are unlikely to be representative of the trial population as a whole.

Firstly, attendance was by invitation and people self-nominated to attend on a first-come first-served basis. It is likely that this resulted in an over-representation of residents with an active interest in supporting the trial – borne out by the fact that the majority of those attending were participating in the trial.

Secondly, the group did not appear to be demographically representative, with older residents over-represented – something that was noted by one of the attendees. Reasons for this are probably varied, but it is common for older people to be over-represented at forums such as this, possibly because they have less time constraints than younger (working-age) people.

3.3 Recommendations for further evaluation methods

Woollahra Municipal Council is engaged in a highly innovative food waste recycling trial, and it is likely that many other Councils in Australia will be interested in the results – both in terms of the actual volume of waste diverted from landfill, and in terms of resident participation levels and feedback. This suggests that it will be worthwhile for Council to invest in further evaluation of the trial.

The resident survey conducted by Council provides some useful indications of residents' views about the trial. However, there are a number of limitations with this survey. The sample size was small, and is unlikely to have been demographically

representative. It is also likely to contain an over-representation of people who are participating in the trial and so feel they have some feedback to provide. It is suggested that those residents who are not interested in participating in the trial, are also likely to be uninterested in completing a survey about it.

The feedback workshop has also proven valuable in gathering feedback that is more detailed from residents – as well as constructive suggestions for Council. However, as noted above, the workshop also has its limitations as a representative feedback and evaluation mechanism.

For these reasons ISF recommends that Council consider further research and evaluation activities in relation to the trial. These might include:

- a telephone poll: this would enable Council to draw on a representative, random sample, including participants and non-participants,
- an online survey: this could be used instead of, or in combination with, the telephone poll. Online surveys are a cost-effective means of reaching people who do not like telephone surveys. A disadvantage is that they are unlikely to be representative, as the sample is self-selecting.
- door-to-door surveys: this method would enable researchers to target particular areas of the LGA, or household types, such as multi-unit blocks, and also to actively seek responses from people who are non-participants
- in-depth interviews: these might be usefully carried out with non-participating residents, in order to explore the reasons for their non-participation (this would be useful to inform the development of more effective behaviour-change strategies)
- waste audits: physical audits could be conducted for a random sample of households, to quantify and describe the actual volume and types of waste being placed in the various bins
- cleaning and filtering of Council's existing quantitative waste data: this would be done with the aim of rendering existing data useful for evaluating the impacts of the trial
- statistical analysis of quantitative waste data: analysis of historical and new waste data could help to identify the impact of the trial – possibly using non-participating areas of the LGA, or an adjacent LGA as a control.

ISF would be happy to discuss any opportunities to assist Woollahra Council in conducting further analysis and evaluation work of this kind.

Appendix A: PowerPoint presentation: results of Council survey



Organic waste collection trial: results so far



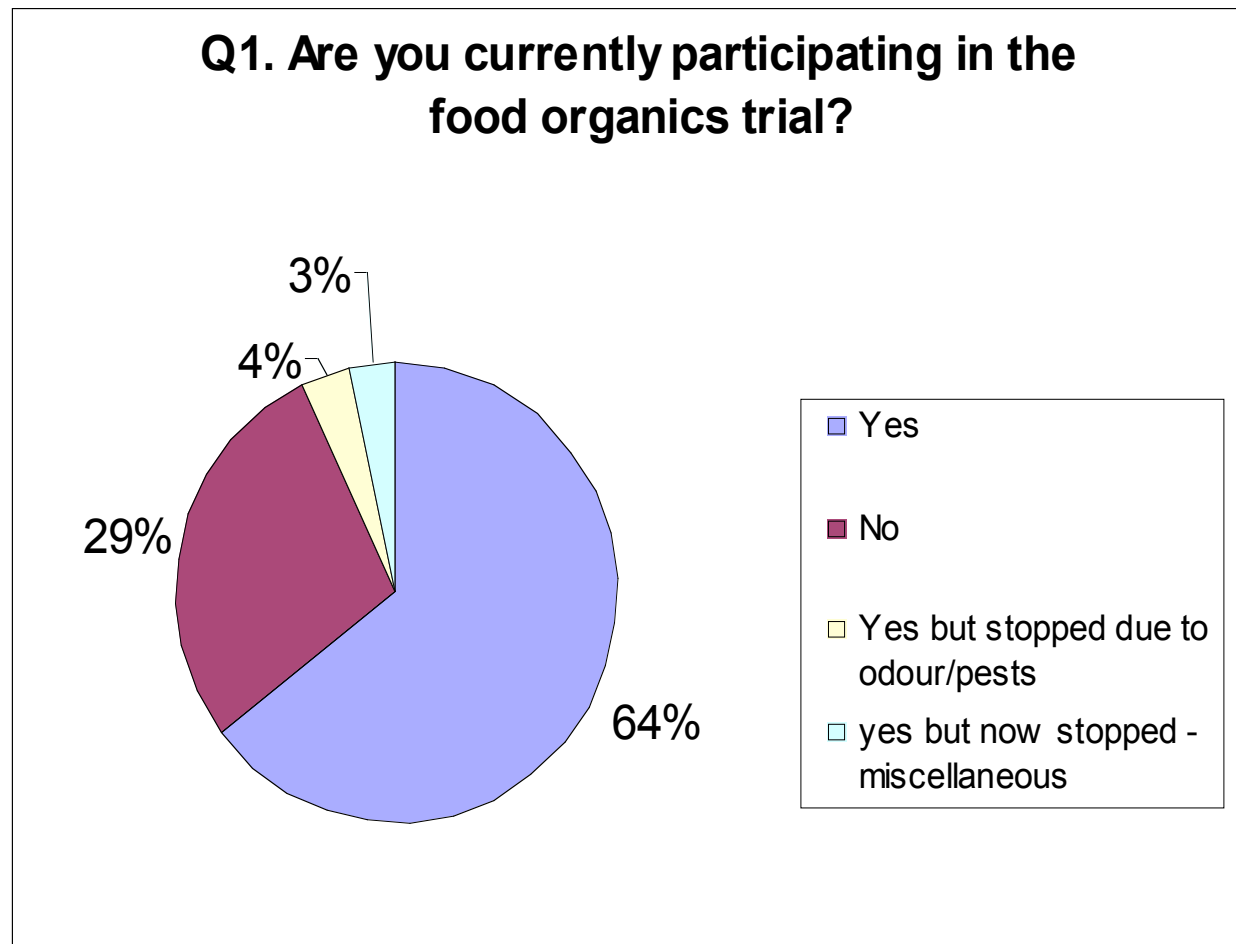
Food organics trial

RESIDENTS' SURVEY

- survey conducted after 3 months
- surveys sent to 2,400 households
- 244 surveys returned
- = 10% sample

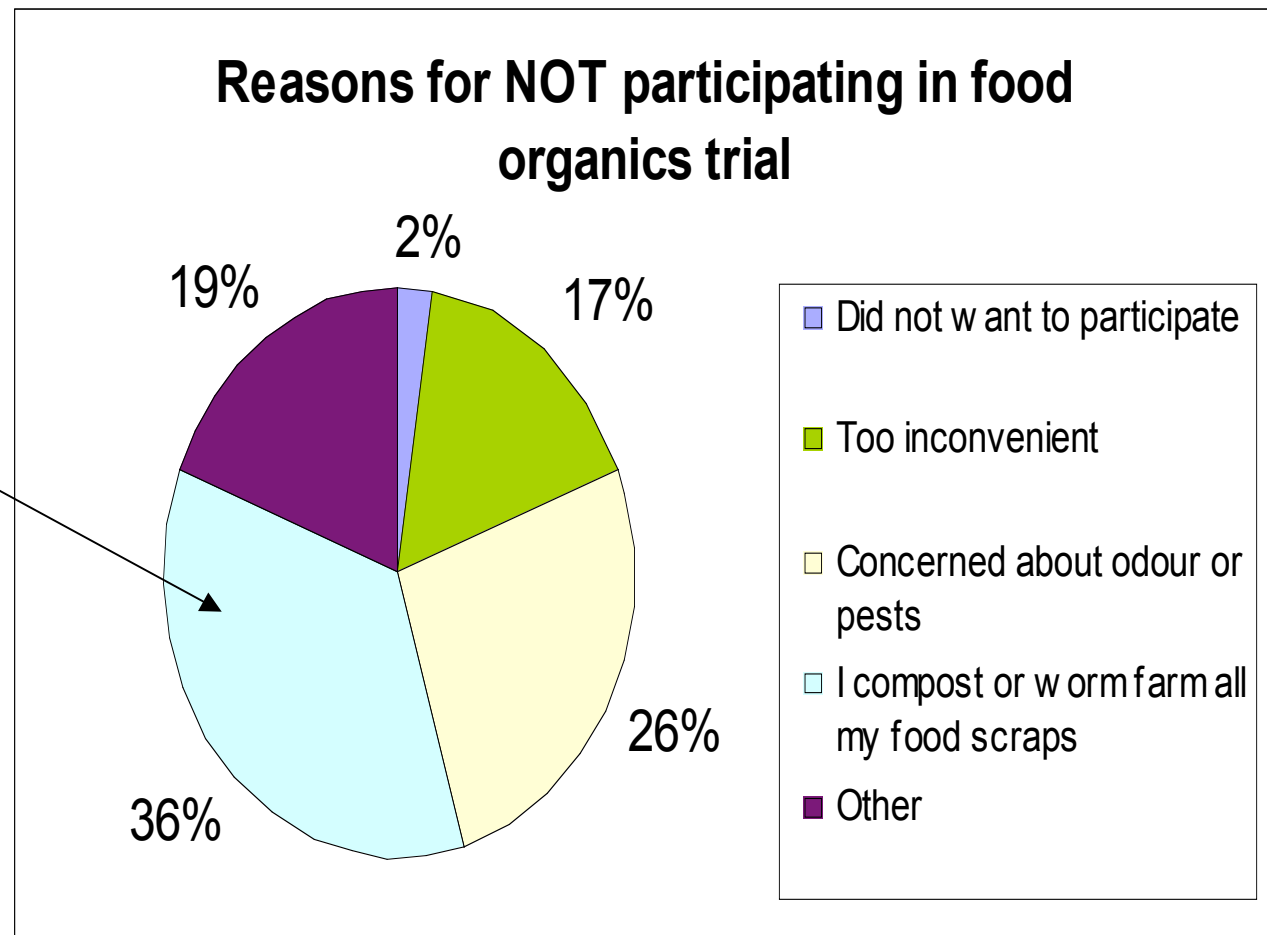
HOW MANY HOUSEHOLDS ARE TAKING PART?

- 64% are participating
- 7% tried it but stopped
- 29% not participating



WHY ARE SOME PEOPLE NOT TAKING PART?

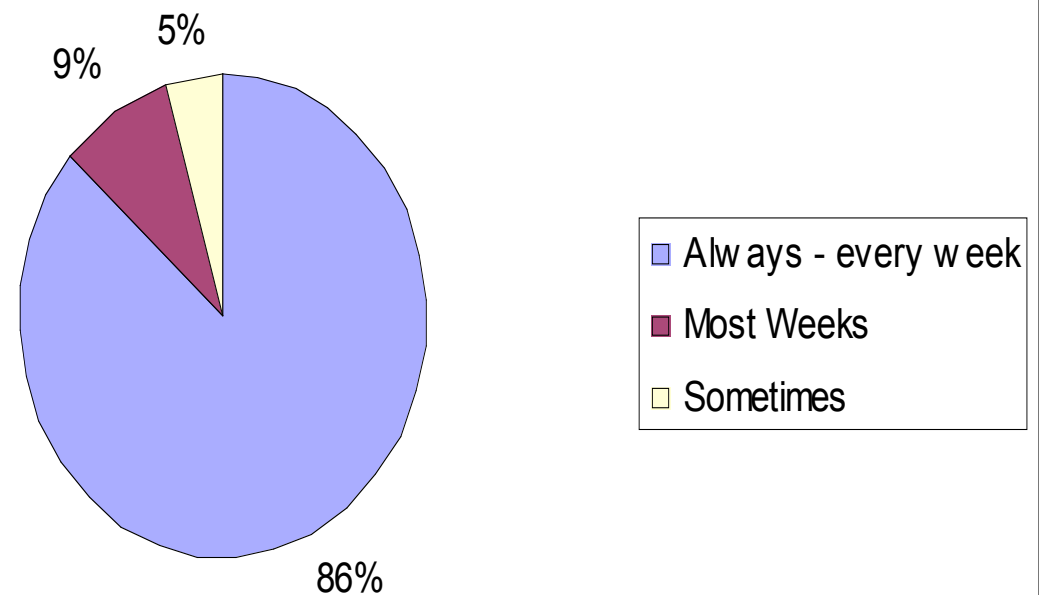
- 36% of those not participating use compost or worm farm instead



HOW OFTEN ARE PEOPLE USING THE BIN?

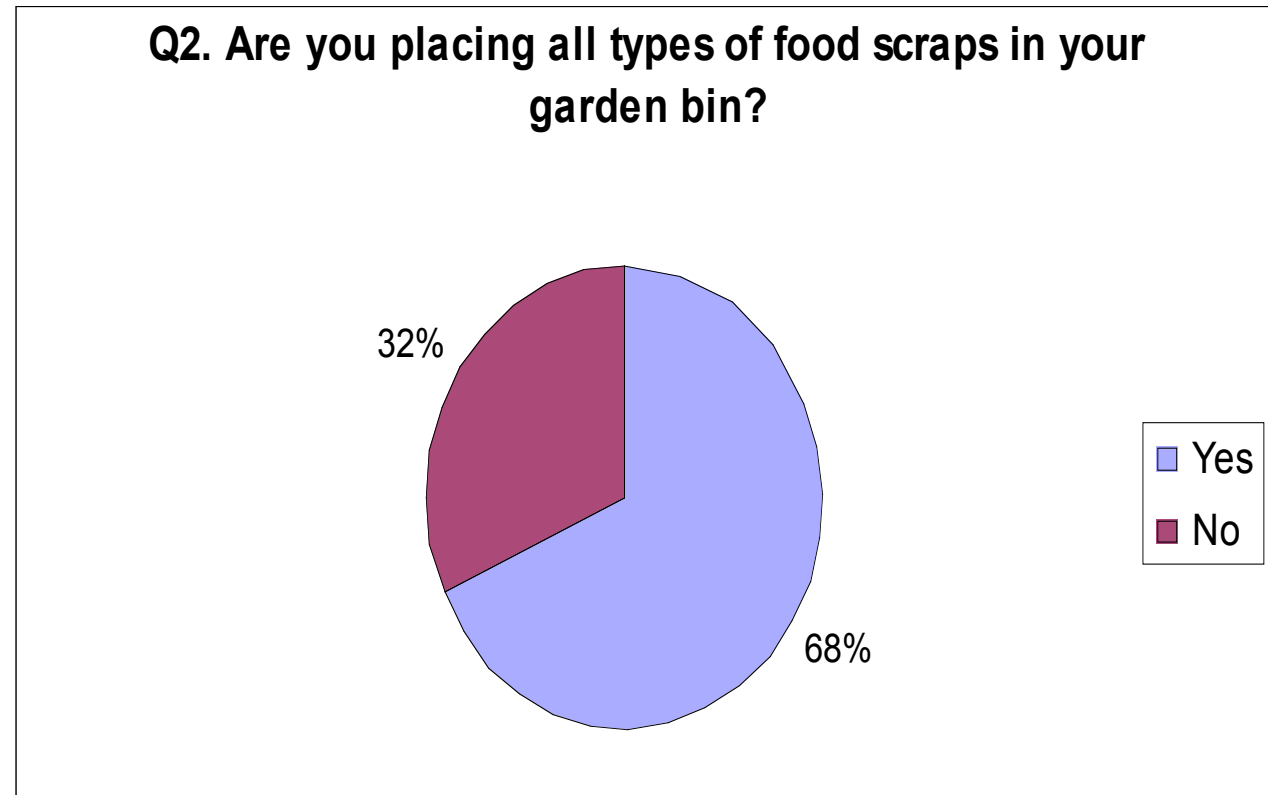
- Of those who participate, 86% are putting food scraps in their bin every week

How often are you placing food scraps in your garden bin?



ARE PEOPLE PUTTING ALL FOOD TYPES IN THE BIN?

- Most (68%) are placing **all** types of food in their garden bin



WHAT THINGS ARE SOME PEOPLE LEAVING OUT?

- Some (38%) do not place certain items in the bin:
 - meat/fish/bones
 - cooked food/leftovers
 - dairy products
- Reasons?
 - “Bad odours from meat”
 - “Too smelly and time consuming to organise”
 - “Smell and risk of attracting vermin”

DID PEOPLE FIND THE KITCHEN TIDY BIN USEFUL?

- 65% found the kitchen tidy bin useful, although some people would prefer a larger one
- the rest found it too small, or preferred their own bin or method
- 75% said they would still participate even if Council did not supply a free tidy bin

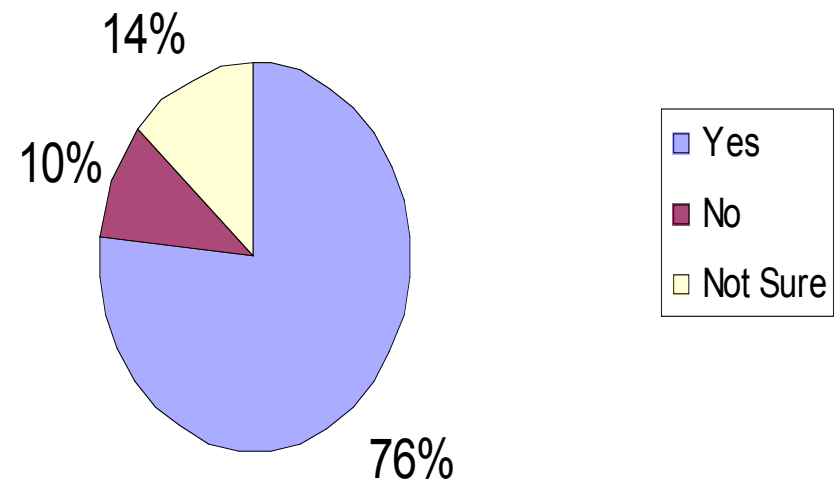
HOW MUCH MATERIAL DID PEOPLE RECYCLE?

- 28% recycled 1-3 tidy bins full a week
- 36% recycled 3-6 bins full
- 18% recycled 6-9 bins full
- 18% recycled more than 9 bins full

DO PEOPLE WANT THE SERVICE TO CONTINUE?

- High level of support for an ongoing service
- 10% higher than the participation rate - many who compost or worm farm support the service for other people

Q6. Would you support a food organics collection if it were to become part of our regular service?



SUGGESTIONS FOR COUNCIL

- Some would like flexibility in size of bins
- People who had problems with smells and pests seemed to be those with not much garden waste to mix in
- Advice on preventing smells and pests
- Share ideas and tips: some lined bin with newspaper, others wrapped the food in newspaper. One placed the tidy bin in the fridge. Others suggested Council could look into biodegradable bin liners.
- Ongoing information and education