

Plus  
**BASSTA**

# Guide infosurvey organic waste

Authors: Maarten Mulder, Bente Snäll, Carlijn Kappers, Krispijn Faddegon



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## Introduction

If you, as a municipality or waste collector, you want to learn more about how residents view the separation of organic waste and at the same time encourage them to separate their organic waste (better), then the infosurvey may be an interesting solution. This is a survey and behavioural intervention in one. The infosurvey can be used in a neighborhood where organic waste can be separated.

### Contents of this manual

The infosurvey is inspired by infosurveys of D&B and the municipality of Meppel, developed in cooperation with Rijkswaterstaat. In the BASSTA-plus project we made a version with a quiz style. This is focused on organic waste and, in addition to influencing behaviour, also aims to collect data. It was developed in cooperation with Avalex, the municipality of Delft and The Hague. The long version was conducted in the Hague (n=43) and in Delft (n=86). Because each municipality has (possibly) specific needs and wishes, a basic design (in Qualtrics) was developed that is applicable for all municipalities in the Netherlands. This document provides a manual for using the infosurvey. In addition, the concept and underlying theories are explained. Advice is also given on how to conduct the infosurvey based on practical experience, the expected results, and suggestions for using the results.



# 1. Purpose of infosurvey

The purpose of the infosurvey is twofold. Firstly, it is intended to collect information from residents about their experiences, ideas and behaviour regarding the separation of organic waste. Secondly, it is intended as a behavioural intervention: to improve their motivation and knowledge towards organic waste separation and to stimulate them to separate better and/or more organic waste.

## When to use:

- If you want residents to separate their organic waste better (quantitatively and/or qualitatively).
- If you suspect that increasing knowledge and/or motivation may help to influence behaviour in that

neighborhood.

- If you want to gain more insight into the current separation behaviour and in which 'stage' of the behaviour the residents are at (e.g. whether they are planning to separate, already separate or have stopped).
- If you want to gain more insight into what barriers and deficiencies are experienced or anticipated by residents.
- If you want to explore which following behavioural interventions might be good or examine support for certain interventions.

# 2. Form and structure

## Advantages

- + Relatively inexpensive to use.
- + Targeted information that responds to the needs and behaviour of the resident in question.
- + Easily adaptable to local situation and goals.

## Disadvantages

- Reaches a small portion (about 10%) of residents, most of whom already separate organic waste. We notice that mainly (good) organic waste separators fill out the infosurvey. The infosurvey can also be used to get more residents to separate their waste. After all, it is also aimed at non-sorters. However, we noticed that it is difficult to get them to fill out the infosurvey, so that would require a lot of extra attention.

Figure 1 Advantages and disadvantages infosurvey

# infosurvey

The infosurvey can range from an offline survey-like format to a more interactive quiz.

The advantage a digital form is that it can better respond to the (information) needs of the residents in question. For example, residents who do not separate organic waste are asked different questions than those who do. It is also faster to analyze than a paper version. With a more interactive form with different types of interaction (such as videos, links, drag and select answers) it is possible to share more information.

## Short and long infosurvey

Depending on the purpose, a short version (about 3 minutes) and a long version (about 10 minutes) of the infosurvey were developed. The diagram below (see Table 1) shows the advantages and disadvantages of both versions.

Briefly, if you want to conduct both a behavioural intervention and collect data

Function	Long infosurvey	Short infosurvey
Data collection	+	-
Knowledge sharing	+	+ -
Aimed at changing behaviour	+ -	+
Length/duration of completion	-	+
Questions tailored to type of separator	+	+

Table 1 Advantages and disadvantages short and longinfosurvey

## Structure in Qualtrics

We have developed an infosurvey within the Qualtrics software program. There are several possibilities regarding the routing (which questions they do/don't get) and the type of questions, allowing more freedom for a creative design and different types of interaction, for example with drag and drop answers and videos. The results are easy to analyze and export to Excel or SPSS.

on residents, use the long version. If you primarily want to conduct a behavioural intervention and reach as many residents as possible, use the short version. The long version will be explained first, followed by the short version.

## 2.1 Long version infosurvey

The infosurvey is roughly divided into

three parts:

- Intro en routing
- Contents: motivation, capability and opportunity
- Evaluation

An example of the long infosurvey can be requested from the authors.

### 1. Intro en routing

In the first part, the purpose of the

infosurvey is explained and respondents must agree to the use of their data [informed consent]. In order to determine which questions are relevant for the respondent, it is asked whether they do not/frequently/frequently separate kitchen and garden waste and how they view organic waste separation (the stages of change model (Norcross, 2011) is used for this purpose: a model to determine how far a person is from the desired behaviour) (see figure 2).

This leads to four target groups for which the infosurvey has a different purpose (see table 2). The four target groups

receive partly different questions (and therefore go through a different route). For example, non-separators are mainly asked questions about motivation, while good separators are asked questions about how to separate even better or about helping other residents.

### 2. Content: Motivation, opportunity and capability

The survey is constructed based on the COM-B model, which assumes three factors that must be sufficiently present to engage in certain behaviours: capacity, opportunity and motivation (see figure 3).

The following overview shows the structure of the infosurvey. The infosurvey consists of several groups of questions explained below. The colors indicate which factor from the COM-B model the questions address. It can be seen that the non-separators (route 1) receive the fewest questions. Additional or replacement questions are added in the next route.



Figure 3 COM-B model



Figure 2 Stage of change model

Type of respondent	Purpose route
Route 1 Non-separator + denial	Awareness and attitude change (start to consider important).
Route 2 Non-separator + recognition	Attitude change and action perspective (knowing why and how to start separating organic waste; and removing foreseen barriers).
Route 3 Occasional separator	Better understand value, improve knowledge and remove perceived barriers (to prevent relapse and get more/better separation).
Route 4 Very good separator	Improve knowledge (avoid mistakes) and activate to encourage other residents.

Table 2 Overview of different routes



Figure 4 Structur long infosurvey

### Explanation of illustration

The numbers refer to the numbers in figure 4.

#### Route 1: Non-separator [denial]

**1.** Several questions are asked to make residents aware of the value of organic waste separation. This seeks to find out what residents already know or think about what happens to organic waste. This plays into their motivation by increasing perceived usefulness.

**2.** This is followed by questions about their personal values and its relationship to organic waste separation. For example, they can indicate that they find the environment important and are then asked to what extent they think that separating organic waste contributes to a better environment (this can lead to cognitive dissonance). Thus, through personal values, they can start to consider organic waste separation more important and revise their attitude (increases intrinsic motivation).

**3.** Separating organic waste has primarily a social benefit. However, by indicating in this question what personal benefits they expect or experience, you help them see the personal benefit (increases motivation).

**4.** At this point they are asked about assumed barriers such as odor/ space/ organic waste bin to gain insight into the main barriers that should be removed. Depending on their answer, respondents are given targeted tips to remove these barriers (this increases opportunity). NOTE. For this section, wording is very important so that respondents do not all give excuses for not separating organic waste!

**5.** Through this question, residents gain an understanding of why it is harmful if you don't do it right. This is firstly to prevent contamination and secondly to encourage them to separate organic waste (this mainly focuses on increasing knowledge).

**6.** Finally, by asking what the municipality can do to help make organic waste easier to separate, you provide space for comments and suggestions that may be useful in responding to the local situation.

#### Route 2: Non-separator [did plan or stopped]

**7.** Here they are asked if they would participate in a common goal if they knew that a large group of residents in their neighborhood would participate. Separating organic waste (better) together with the neighborhood helps to increase motivation to start or start separating again, for example. This plays into social goal bonding, social identity and connectedness to work together toward a sustainable goal.

**8.** By helping residents who plan to separate organic waste with the possible steps they can take to start separating organic waste, you facilitate the desired behaviour (for route 2 only). This promotes self-efficacy and addresses avoidance behaviours.

#### Route 3: Occasional separator

**9.** Instead of expected barriers, respondents are asked about the barriers they experience. Depending on their response, respondents are given targeted tips to remove these barriers (this increases the opportunity). Use the understanding of the key barriers of occasional separators to prevent relapse and ensure they continue to separate.

**10.** Questions are asked here about what is/isn't allowed in organic waste. It may include interfering substances found in sorting analyses. These questions help to increase knowledge and ensure better quality organic waste.

Route 4: **Very good separator**

**11.** This question asks if they would motivate other residents to (better) separate organic waste. They can serve as role models or reinforce the social norm to separate organic waste to promote social opportunity and motivation of other residents.

**12.** The super-separators are asked more difficult questions about what is/ isn't allowed in organic waste to increase knowledge and improve the quality of organic waste.

**3. Evaluation**

If possible, it is good to measure (e.g. with data from card offers, weight measurements or visual checks) whether the infosurvey has had an effect on the separation behaviour. A simpler (more indirect) way is to ask in the infosurvey if it has been effective, for example by asking if the infosurvey has contributed to the knowledge, motivation or intention to separate organic waste.

*We request everyone who conducts an infosurvey to include such a question at the end to continuously gain more knowledge about the effect of an infosurvey.*

**2.2 Short version infosurvey**

The short version of the infosurvey is intended as a behavioural intervention. It also begins with a question to determine if someone already separates organic waste and what "stage of change" a person is in. All respondents to the short infosurvey are then asked similar questions, but the question wording differs slightly to apply to their 'stage of change' (see figure 2). The overview to the right shows the structure of the short infosurvey.

An example of the short infosurvey can be requested from the authors.

**2.3 Adapt to your own needs**

It is advisable to adapt this infosurvey to the specific needs of one's own municipality. The following can be considered:

- Identify common contaminants in organic waste: make use of sorting analyses and through the infosurvey playfully try to find out why these unwanted substances end up in the waste and name tips and negative consequences of these products in the organic waste.
- Personalize the infosurvey: Within the Qualtrics program, adjustments can easily be made to both colors and fonts. Tip! Insert the own communication tools of the municipality or the waste collector with which it cooperates, such as videos and pictures.

Purpose of the questions -----> Desired effect

**Behaviour**

**Segmentation based on phase of separating**

- Never considered separating before
- Planning but not yet started to separate
- Separate sometimes
- Separate often
- Has separated but stopped again

**Identify current behaviour**

**Motivation**

**What benefits do people personally experience from separating organic waste?**

**Attitude/ Understanding usefulness/ Social norm**



**What are the social benefits of separating organic waste?**

**Attitude/ Understanding usefulness/ Response efficacy**

**How would you convince your neighbors to separate as well?**

**Attitude/ Self-belief**

**Opportunity/Capability**



**Tips from other people who separate**

**Social norm/ Knowledge**

**Capability**



**Negative consequences of organic waste in the residual waste**

**Expand knowledge**

**What does/doesn't go in the organic waste**

**Expand knowledge**

### 3. Distributing the infosurvey

Many tips on distributing surveys already exist. For detailed tips on this, you can consult the website Schouders onder Schoon and download the '[Advies/Toelichting/Handleiding](#)'.

#### Dissemination infosurvey

The infosurvey can be distributed in different ways, for example through a residents' letter or a flyer. An appropriate time to launch the infosurvey is, for example, when changes take place in the municipality, such as the placement of new organic waste containers or an

announcement for more interventions. In the BASSTA-plus research, the long infosurvey was distributed via a residents' letter and a reminder flyer after two to three weeks.

In addition, the infosurvey can also be taken online on the street. For example, by bringing an Ipad with you. Keep in mind that this may take extra time, but it does offer the opportunity to gain more insight into underlying reasons why residents do or do not separate waste.

### 4. Expected outcomes and results

#### What information can be obtained from the responses?

Depending on the purpose of the infosurvey, it is possible to add or remove certain parts. If all parts are used, the following information can be obtained about the respondents:

- To which target group they belong; which (personal) values they find important;
- To what extent they know what happens to organic waste;
- Whether they are interested in participating in a group goal and in which group goal (e.g. more residents separating organic waste or better quality);
- What obstacle they expect (non-separators) or experience (separators);
- What mistakes they make in separating organic waste;
- What can be provided to help them.

In addition, the infosurvey seems to be a good way to recruit people to help convince other residents to separate organic waste. In our experience, quite a number of respondents volunteered to participate in, for example, a focus group or as an ambassador.

#### How to analyze the data

In several (survey) programs, the results become immediately visible. In Qualtrics, for example, you can see how many respondents gave a certain answer (in numbers and percentages).

To be able to make connections and say something about this with sufficient reliability, the results must be analyzed statistically (e.g. with SPSS). For this it is important that enough residents have completed the infosurvey. For example, if few nonseparators have filled out the infosurvey, it is not possible to say anything about this group with much reliability.

#### How can the outcomes be used?

The outcomes can be used for several purposes:

1. Determine what message is important to communicate. The infosurvey in Delft and The Hague, for example, revealed that there are still misunderstandings about the usefulness of separating organic waste. It also became clear what barriers residents expect or experience around the separation of organic waste.
2. The infosurvey provides leads for subsequent behavioural interventions. The infosurvey in Delft, for example, revealed a need for free organic waste containers and knowledge about what is and what is not allowed in the organic waste container.
3. It is possible to gather support around certain interventions. For example, Delft and The Hague infosurveys asked about support for a group goal and which goal residents consider to be most important.

#### Our experience

- Approximately **10% of residents** complete the infosurvey.
- A **reminder after about two weeks** increases the number of respondents by about 30% (so in a neighborhood of 1000 people, our experience is that about 70 people fill out the infosurvey after the first letter and another 30 after receiving the reminder-flyer).
- An **online questionnaire using a qr-code** seems to ensure that more people complete the infosurvey. (vs. a paper questionnaire).
- Relatively many people complete the questionnaire who are highly educated or have something to do with the subject and already separate their organic waste.
- A deadline of a few weeks is sufficient, after that it will not be completed.
- Active residents who encourage others to fill it in have a significant effect on the response rate.
- A reward helps to increase the response rate (we used a 50,- voucher).



## 5. Impact of the infosurvey

In Delft and The Hague we were only able to do an effect evaluation by asking the respondents about the effect of the infosurvey (The Hague n=44, Delft n=86). The following results were found:

- A third indicated that the infosurvey made them think about separating more/ better organic waste.
- A quarter says the infosurvey has given them a better idea of how to separate organic waste.

- A quarter says the infosurvey gives them a better understanding of why they separate organic waste.

Possibly because relatively many good separators completed the infosurvey, over a third indicated that the infosurvey gave them no new information.

## 6. Appendix

### 6.1 References

J.C. Norcross, P.M. Krebs, J.O. Prochaska, Stages of Change, JOURNAL OF CLINICAL PSYCHOLOGY: IN SESSION, Vol. 67(2), 143--154 (2011)





# Colophon

## Guide infosurvey organic waste separation

### Authors:

Maarten Mulder, Bente Snäll, Carlijn Kappers, Krispijn Faddegon

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