

Dutch Focus Groups results

TR 3.54 Interactions with citizens and consumers at local scale



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Summary

As part of the Endure project, funded by the EU Sixth Framework Programme, two focus group sessions were carried out in January 2010 in the Netherlands.

Aim of these focus group sessions was to understand the beliefs, associations and attitudes people have concerning the use of pesticides and integrated pest management (IPM) in regard to apples and pears. The focus group guideline was written by the French project partners.

In total 15 people participated in the focus group session and participants were heterogeneous in gender, age and background. They all bought apples and most of them visited farms or farmers markets.

Participants already had positive associations with fruit regardless of its cultivation. Common associations were : 'good taste', 'colorful', 'vitamins' and 'important'.

Concerning apples, most participants preferred apples which were sound and weren't dent. Some did not mind some spots on the skin but most participants still preferred a shiny skin. Participants that did not mind spots or bugs, were conscious consumers that already buy organic food.

Their ideas on pesticide use varied little. Their positive associations on the use of pesticides were nice and spotless products, no insects or diseases, improvement of fruit variety and quality. Their concerns were the possible health effects for them as a consumer as well as for people working at orchards. Other concerns were the possible impacts on the environment. Participants who mostly bought fruit in supermarkets and did not (often) buy organic fruit, found it hard to give associations.

Some believed it is okay when an apple looks less perfect due to minor use of pesticides. They then think it is better for the environment. Some said they can peel their apples and then they simply cut the spots out. Still most participants thought it is important to tell people why these apples look less perfect or even tell people why apples look so perfect. By telling about the use and possible negative effects of pesticides, people are more aware of these consequences and maybe are more willing to buy fruit with less or no pesticides.

Other participants did not think it works that way, they believed that people want perfect fruit and won't go for less.

Some participants saw IPM apples as a new niche between regular apples and organic apples, It's probably cheaper than organic and better for the environment than regular apples. Most agreed it is very important to communicate clearly about the advantages of these apples. Then there even would be a possibility to sell them through the supermarket. Now only perfect apples are sold at supermarkets.

1 Introduction

1.1 Objectives

Endure is the European Network for Durable Exploitation of crop protection strategies, part of the Sixth Framework Programme of the EU, priority 5: 'Food, Quality and Safety'. Its aims are to:

- Build a lasting crop protection community of research
- Provide end-users with a broader range of short-term solutions to specific problems
- Develop a holistic approach to sustainable pest management
- Take stock of and inform plant protection policy changes

Within the Endure project, many actors of the supply chain that have been interviewed, claim that consumers want products of perfect quality. However, consumers are also citizens and, as such, have their own assessment of the impact of agriculture on the environment and on the society.

The objective of task TR 3.54 concerns the interactions with citizens, consumers and farmers at local scale. Therefore it will investigate the statement that consumers want products of perfect quality. Besides, it will study the way in which the consumer/citizen articulates the issue of production modes and their environmental impact (on the water quality, on biodiversity, on the landscape) with the issue of products' quality and also with social issues such as the size of local farms or the farmers and employees working conditions.

This will be achieved through focus group discussions in 4 European countries (France, Italy, The Netherlands and United Kingdom) with consumers at local scale.

The current report discusses the results of the Dutch focus groups. We will first discuss focus groups in general and the methodology used in this specific study. Demarcations of our study are mentioned and demographics of the participants are given. In chapter two the result of our study can be found, followed by our conclusions in chapter three. In the Annex you may find the guideline for the focus group discussions, a list of fruit associations and pictures of apples used during the discussions.

1.2 Focus groups

Focus group discussions are interactive group discussions lead by a moderator. It's a loosely structured discussion where the moderator encourages the free flow of ideas. Group dynamics are useful in developing new streams of thoughts and covering an issue thoroughly .

Usually six to ten people take part of the discussion and the discussion lasts for one and a half to two and a half hours. The discussion is normally recorded on video, DVD or voice recorder and can be streamed via a closed streaming service for remote viewing of the proceedings. The discussion

room usually has a large window with one-way glass - participants cannot see out, but researchers and other viewers can see in.

During focus group discussions projective techniques can be used (e.g. Evers, 2007; Greenbaum, 2000). These are unstructured prompts or stimulus that encourage participants to project their underlying motivations, beliefs, attitudes, or feelings onto an ambiguous situation. They are all indirect techniques that attempt to disguise the purpose of the research. Examples of projective techniques include:

- Word association - say the first word that comes to mind after hearing a word sentence completion - participants are given incomplete sentences and asked to complete them;
- Story completion - participants are given part of a story and are asked to complete it;
- Cartoon tests - pictures of cartoon characters are shown in a specific situation and with dialogue balloons - one of the dialogue balloons is empty and the participant is asked to fill it in;
- Thematic apperception tests - participants are shown a picture (or series of pictures) and asked to make up a story about the picture(s);
- Role playing - participants are asked to play the role of someone else - researchers assume that subjects will project their own feelings or behaviours into the role;
- Third-person technique - a verbal or visual representation of an individual and his/her situation is presented to the participant - the participant is asked to relate the attitudes or feelings of that person - researchers assume that talking in the third person will minimize the social pressure to give standard or politically correct responses.

Focus group discussions are mostly used during the explorative stage within a research process, for which they are especially suited for the generation of hypotheses. It could be noticed that recently they have been more and more used as a research method of its own.

1.3 Methodology

The focus group guide included a first part of warming up and introduction, the second part was an in-depth investigation and the third part was a final closure.

The introduction was to make the participants comfortable within the session and it aimed for a snapshot of the participants overall perceptions about the topic of fruit consumption. The technique of word association, mentioned in the last paragraph, is used. During the second part, questions on apples and pears, consumption, purchase, habits, farmers and orchard and opinions on pesticide use were tackled and participants were asked to perform different tasks. These tasks consisted of giving positive neutral and negative opinions on the use of pesticides in apple and pear orchards. Furthermore they ranked ten different apples, explaining which they preferred and why. Each focus group ended with a brief evaluation and a short discussion on the main topics.

After one to one and a half hour there was a short break for the participants to use the restroom or smoke a cigarette.

The guide was written in English by the French project team and translated to the local language by each partner. The English guideline can be found in Annex 1.

Participants and recruitment

Identifying and selecting appropriate participants is an important aspect of conducting focus group research. Within this project only two focus groups were carried out and due to its sample size it was decided that both groups would consist of similar participants.

Participants were recruited through an agency. During the recruitment interview, consumers were not directly told that the focus group was only about fruit or apples and pears specific, for the simple reason not to bias their opinions with the upcoming session. Nevertheless, they were asked about their frequency of shopping at a farmer or farmers shop.

The focus group sessions were composed of 7 and 8 participants who were quite heterogeneous in their background and demographic characteristics in relation to fruit consumption. Despite no common ground, the participants' comfort level was high and allowed them to actively participate. Participants did not know each other beforehand.

The sessions took place during the month of January 2010. Each focus group lasted around 2 to 2.5 hours. They took place in the afternoon and in the evening. The sessions took place in a room especially designed for focus groups. There were drinks and cookies or candies available for the participants. Both sessions were taped on DVD and voice recorder. After the focus groups, participants were thanked with an envelope containing € 50 cash.

1.4 Demarcation

This study is exploratory. Therefore the results can not be generalized to a larger population, since the sample is very small and the recruitment did not aim at a representative sample from the overall population. Besides, the focus group discussions were only partially structured, and not standardized. Small groups from one segment of the population were selected to hear as many different opinions about fruit and apples and pears as possible; the selection of the participants may play a role in larger or smaller extent, depending on each country's consumption habits.

The approach of the study is subjective, and the analysis of the gathered data is only interpretative.

Furthermore due to time restraints, the Dutch focus groups did not entirely follow the guideline written by the French partners. There was no mime play in how to consume apples and pears. Second, the gathering of opinions on pesticide use was done first individually instead of only as a

group. Finally, the task on evaluating a variety of apples, was done individually and as a group by first writing down their personal most and least favorites and after that discussing it as a group.

1.5 Demographics

The focus group sessions took place in Den Bosch which is the capitol of the province of North Brabant and is located in the middle-south of the Netherlands. Near Den Bosch there are many farmers and orchards and in these areas it's more common to purchase products at farmers or farmer shops.

In total 15 participants were recruited for the focus groups. In the first session four female and three male participants participate. In the second session their numbers were equal. Most participants had an average to high education level. Only one person was unemployed, two persons were student and all others were employed. Further demographics of the participants can be found in table 1.

Table 1: Demographics of focus group participants

| | |
|------------------------------------|--|
| Gender | 8: Female 7: Male |
| Age | 5: <35 year 6: 35 -50 year 4: > 50 year |
| Education | 3: Low 5: Middle 7: High |
| Household | 4: Single 3: Single with child(ren) 5: Married/living together 3: Married/living together with child(ren) |
| Visiting a farmer or farmers' shop | 4: Once a week 3: Twice a month 3: Once a month 5: 4-6 times a year (mostly summer and harvest season) |

2 Results

2.1 Introduction

In this chapter the results will be discussed in the same order as the topics in the focus group guideline were handled. First, the general perceptions on fruit are discussed in paragraph 2.2. In paragraph 2.3 the use, perceptions and purchase of pears and apples are highlighted. Next, associations with farmers and the orchard are handled in paragraph 2.4, as well as the task of giving personal positive, neutral and negative associations regarding the use of pesticides. In paragraph 2.5 participants' opinions on a variety of apples are described and in paragraph 2.6 some final remarks made by the participants are describe. In most paragraphs quotes made by participants can be found in *italic* and between brackets.

2.2 Fruit in general

First participants were questioned about fruit in general. The moderator wrote their answers down on a white board. The question asked was: "What do you think of when I say the word fruit?"

Answers included habits of fruit (beneficiaries), its looks, consumption moments and origin. 'Health' was the first answer given by most participants. Other common answers were 'good taste', 'colorful', 'vitamins' and 'important'. In the first focus group more negative aspects were mentioned as well like 'lot of work', 'allergies', 'get squeezed in your purse', 'pesticides', 'rots easily' and 'fruit flies'. A list of all aspects can be found in Annex 2.

2.3 Apples and pears

General

Pears and especially apples are seen as typically Dutch fruits. Apples are easy to take along, not vulnerable, they have a good bite and are perfect as an in between snack or before or after exercising. There is a broad variety of apples available in the Netherlands and some participants mentioned specific health aspects of apples like being good against arthritis and good for sleeping.

Pears can be tasty and juicy but are vulnerable as well and most participants do not like the skin and therefore need to peel it. Furthermore it ripens fast.

For both apple and pears some preparation techniques were given like for pies, applesauce or stewing. Some mentioned apples and pears as a product of the region.

Qualities

Most important qualities of apples were being ripe with a good and firm bite and especially not being mealy. The looks of the apple are important as well. Most participants like them shiny and

sound. Nearly all participants preferred pears to be both firm and ripe, only two persons preferred them to be soft. All participants like pears to be juicy.

Although apple qualities like being sound are important, these qualities are not important when they are used for apple sauce or pie. It is then okay for apples to have specks and most participants prefer other more sour varieties for apple sauce or apple pie. Two women mentioned they buy little children's apples with smiley faces on them for their children. They believe normal apples are too big for their children.

Eating manners

Only two participants said not to peel their pear, they did wash them however.

Apples are sometimes peeled but mostly eaten out of the hand. Participants with children mentioned they usually peel and slice apples for their children. Others mentioned to eat apple on bread with a sniff of cinnamon. Apples are peeled and sliced for their children or when the apple is a bit overripe or when it is put on a slice of bread together with some cinnamon.

Buying behaviour

Most participants buy their fruit and apples and pears at the supermarket. It is what they are used to and it is convenient (one-stop shopping) to participants. Although it is convenient many prefer other outlets. Six participants said they buy apples and pears at the market and two said they went to the organic market. Six participants mentioned buying apples and pears from a local farmer and three participants sometimes buy them 'on the road' next to a farm. Four participants mentioned they have a subscription on a 'fruit and vegetable bag'. Two other participants said they sometimes get apples or pears from family or friends for they work on a orchard themselves.

Below you will find some quotes made by participants:

"I like apples that are medium sized, and for pears I prefer them in the shape I'm used to. And I look at the skin, if they have brown spots I just don't buy them".

"I always buy my fruit at the farmers market, most apples are smaller or a bit misshaped but I don't mind, they taste great".

"I like bright apples. Not soft, they need to be firm therefore I always touch and carefully squeeze them. I don't look at the price I just take the apple I like even if they sell cheaper ones".

"Some like to buy a Big Mac, I prefer an apple".

"I always buy my fruit and vegetables at a farm, it's nice to meet farmers and you get so much good stuff for maybe just a little bit more money compared to the supermarket but it tastes so much better".

"In the summertime we go cycling and we sometimes buy things at a farm we pass".

"Out of convenience I buy my fruit at the supermarket. And every now and then I go to the green grocery".

"I never peel my apple, all vitamins are just beneath its skin".

"There are pesticides on fruit and therefore I always wash it".

2.4 The orchard and the use of pesticides

Next, participants were asked what their ideas were about orchards and if they ever visited one. Most participants never visit orchards but some have seen them when they were hiking on summer days. Two participants said they don't find Dutch orchards very interesting, the only thing you see are trees standing in a line. Another person therefore prefers walking in forests instead. A third person sees a big difference in Dutch orchards where trees are kept short and being disbudded and French orchards where trees are still big and orchards are nice to walk through. Only one person mentioned the blossom walking tour which you can do in the Netherlands and the opportunity for students and teenagers to harvest apples. One person mentioned it is important for children to know where apples come from and to teach them apples don't grow in the supermarket. One participants thought of the importance of trees in life. Many people she knew plant a tree when a child is born.

Although most participants don't have a wide view on orchards, they do have a variety of opinions about farmers. Their ideas can be divided in two main views; a nostalgic and a modern view.

Many see farmers as a men working hard, working hard for his family but not earning a lot of money, wearing clogs, working at an old or small orchard, having high quality standards, scarecrows, being innovative with new varieties or new shapes (e.g. pear in a bottle). The other view is a person running a big business, thinking broad, internationally, having lots of machinery, structured, being innovative in laboratories and not in the field.

One participant knew someone working at an apple orchard and he told how modern these orchards are and all types of machinery they use to see which apples can be harvested and machines that can tell which apples are good enough to sell to consumers and which are only good for apple juice. Two others knew people who have a little orchard themselves as a hobby. These two participants were more focused on the nostalgic associations with farmers.

Participants were asked to fill out a form. They needed to write down their positive neutral and negative associations regarding pesticide use in apple and pear orchards.

Most participants found it hard to write down neutral associations.

They did have many positive and negative associations though. Participants who mostly buy fruit in supermarkets and do not (often) buy organic fruit, still found it hard to mention associations:

"I find it hard to write down anything, don't think much about pesticides, have enough to worry about already".

Their positive associations were nice and spotless products, no insects or diseases, improvement of fruit variety and quality. Their concerns were the possible health effects for them as a consumer as well as for people working at orchards. Other concerns were the possible impacts on the environment.

Participants who do buy organic fruit or from local farmers had more and different associations regarding pesticide use in orchards. Besides the positive associations already mentioned by other participants, they mentioned non-perishable, cheaper, more money for the farmer, a choice as a consumer to choose between regular and organic and profit for pesticide industry. Negative associations were loss of biodiversity, erosion, monoculture, less opportunity for smaller farms and being less tasteful.

Most given answers can be found in table 2 below.

Table 2: Positive, neutral and negative associations on pesticide use in apple and pear orchards.

| # | positive | # | neutral | # | negative |
|---|---|---|--------------------------|----|-------------------------------|
| 8 | No insects/bugs | 1 | Choice | 13 | Health of consumer and farmer |
| 7 | Sound/spotless | 1 | Color | | |
| 5 | Regulatory law/growth | 1 | Non-perishable | 10 | Soil and environment |
| 4 | No diseases | 1 | European regulations | 3 | Biodiversity |
| 2 | Non-perishable | 1 | Don't see it on an apple | 3 | Faded taste |
| 2 | High crop | | | 2 | Erosion |
| 2 | Quality | 1 | Don't really care | 2 | Monoculture |
| 2 | Cheaper | | | 2 | Don't know |
| 1 | More profit for farmers | | | 2 | unnatural |
| 1 | Choice for consumers for organic vs. regular | | | | |
| 1 | Choice for farmers pesticide use vs. alternatives | | | | |
| 1 | Profit pesticide industry | | | | |
| 1 | Better varieties | | | | |

Below you will find some quotes made by participants:

"When using pesticides you'll have perfect apples, perfectly shaped and of perfect size. This is what most consumers want. I know the fruit industry in east Germany are all bankrupt due to the perfect apples we have. Consumers want things to be too perfect and these are the consequences".

"Developing countries have different standards and rules than Europe has. They use pesticides that are forbidden here but they still ship their products to the EU".

"I think apples from supermarkets are better checked than those you buy at a local farm, overall I trust the apples I buy at supermarkets, it's not all black and white".

"Not every consumer is that well-informed. The conscious consumer maybe is but not the rest".

"Abroad they wear hand gloves when handling fruit in supermarkets, have never seen that in the Netherlands."

"I wonder, is there any supervision on the use of pesticides? What is allowed and what isn't? Or do they spray as often and what they like?"

"You don't know what the consequences are of using pesticides on the long term. Both for human and the environment".

"We all want perfect apples and we all don't want pesticides. We just can't have it both ways".

2.5 Ranking the apples

A total of ten apples were placed on the table to be judged by the participants. Before discussing the apples as a group all participants filled out a form and ranked the apples individually.

They all wrote down their favorite apple and gave a short explanation why. Pictures of all ten



apples can be found in Annex 3. Participants did not know the kind of apple varieties shown or where they were bought.

Most participants preferred apples which are sound and aren't dent. Some did not mind a few spots on the skin but most still prefer a shiny skin. Next nearly all liked apples that were firm and the combination green and red are the colors these participants liked the

most. When an apple is (too) yellow, some had the idea the apple is mealy. Two participants said they always smell the apples because if it smells good it probably tastes good. One mentioned that not only the looks but the texture and bite of the apple is important. Unfortunately he couldn't taste these apples. In table 3 a top ten of all apples is made. Most participants prefer apple number three, one and six.

Table 3: Most and least favorite apples

| Most favorite | | | | | | | | Least favorite | |
|---------------|---|---|---|----|---|---|---|----------------|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 3 | 1 | 6 | 2 | 10 | 5 | 4 | 9 | 8 | 7 |

Nearly everyone disliked apple seven. It wasn't an apple you could eat out of the hand and it had too many dents. In table 4 all answers given by the participants per apple can be found as well as the apple variety and outlet. As mentioned before the majority preferred big and shiny or sound apples. Still participants who are already in favor of organic apples preferred the smaller, less sound apples. They thought the other apples, especially three and six, were too big or too attractive which almost gave them a plastic look.

Other participants thought the smaller apples were too small: "Two bites and you've finished your apple". Or they associated these with apples for little children.



Table 4: Participants' associations with ten different apples

| Participants' associations on the ten apples | |
|--|--|
| <p>Apple 1: Junami, supermarket</p> <ul style="list-style-type: none"> - Looks tasty, nice and sweet - Nice color, smells good, doesn't look too ripe, firm - Attractive color and shape - Looks tasty, nice shape, color and size - Looks healthy and has a 'standard' good size - Looks average doesn't really smell - Attractive colors, nice size and shape, has a real 'apple look' - Looks firm and powerful, very nice appearance - Perfect - Nice size - Looks nice and tasty and firm - It's a shiny apple | <p>Apple 6: Jonagold, supermarket</p> <ul style="list-style-type: none"> - Too green - Shiny and nicely colored, good size and looks tasty with that red and green in it - Good size but looks a bit mealy to me - Has a grave look - Nicely formed, not dented - Attracts - Looks good - Too big - Like its colors, less weight - Too big doesn't look fresh - Good shape - Looks fresh-sour |
| <p>Apple 2: Royal Gala, supermarket</p> <ul style="list-style-type: none"> - An apple to bite in, have to have it when I see it on a fruit bowl - Looks good and is firm but a bit too small and doesn't really smell - Nice and colorful - Most attractive color, robust, apple for lunch - Nice look and color - Looks like you want to eat it directly - Looks average doesn't really smell - Could be mealy and too big - Doesn't look fresh - Looks mealy - Good size and color | <p>Apple 7: Rode Boskoop, organic</p> <ul style="list-style-type: none"> - Good for apple pie - Very ugly, looks uncared. Probably tastes good in an apple pie though - Very ugly, gives me an organic feeling, unsprayed or treated. Still I don't prefer this one - Distasteful, dented - Looks very distasteful and dented - For apple pie or apple sauce - Not an apple you eat out of the hand so looks don't matter - Distasteful, good for apple pie - Great for apple sauce, could be tasty - Worst apple of all - Ugly and coarse - Great for pie not to eat out of the hand |
| <p>Apple 3: Jonagold, green grocery</p> <ul style="list-style-type: none"> - Nice and firm, it stands a rough handling so easy to take along. - Nice colors but small - Good shape and size, like its color - Smells good, color is less - Nice and big, looks tasty - Fresh appearance due to shape, color and shine. It attracts attention - Too big - Too big | <p>Apple 8: Elstar, organic</p> <ul style="list-style-type: none"> - Too small, won't eat it when I see it - Really too small, it's eaten in a sec. - Looks overripe and don't like its color - Very small - Can't eat it, take one bite and you're in its core - Too small - Looks good - Looks shriveled - Looks mealy |
| <p>Apple 4: Topaz, organic</p> <ul style="list-style-type: none"> - Doesn't look tasty | <p>Apple 9: Cox, green grocery</p> <ul style="list-style-type: none"> - Looks okay |

| | |
|--|--|
| <ul style="list-style-type: none"> - Perfectly shaped and colored, almost like plastic - Looks misshaped, chemical - Too many spots and small - Too bad for that little spot and a bit too small - Small apple - Great look and smell - Looks tasty, smells delicious, sound and fits in your hand - Cute - Has a dent - Looks sweet-sour, good size | <ul style="list-style-type: none"> - Too green and too small - Nice color looks okay but really small - Looks average - Looks average doesn't really smell - Sweet-sour look - Doesn't has a stalk - Nice size - Looks firm, fresh-sour and tasty |
| <p>Apple 5: Elstar, organic</p> <ul style="list-style-type: none"> - Too small - Bit small and a bit too yellow, gives it an overripe look - Bit small, color okay - Don't like its top, and really too small - Looks average - Looks average doesn't really smell - Looks sour and a bit sweet, not mealy - Skin looks a bit old - Small and easy to take along | <p>Apple 10: Topaz, organic</p> <ul style="list-style-type: none"> - Nice little apple - Very cute, for children - Looks tasty but bit too small - Nice size, cozy color - Looks average doesn't really smell - I recognize an old variety in it which used to taste really good; sour and a little bit sweet - pretty |

After explaining the use of pesticides and the possible effects of using less pesticides, the opinions on the topic varied.

Some believe it is okay when an apple looks less perfect due to minor use of pesticides. It's better for the environment. Some say they can peel their apples and then they simply cut the spots out. Still most participants think it is important to tell people why these apples look less perfect or even tell people why apples look so perfect. By telling about the use and possible negative effects of pesticides, people are more aware of these consequences and maybe are more willing to buy fruit with less or no pesticides.

Other participants do not think it works that way, they believe that people want perfect fruit and won't go for less. If it was that unhealthy for humans or bad for the environment it would had been forbidden already. As long as apples don't taste like poison, they'll continue to buy them. Besides these participants believe most people do not read all the literature and stories about possible negative effects of pesticides. They have enough to think about already.

Below you will find some quotes made by participants:

"If you use less pesticides and apples would be less big and would have some spots, I simply wouldn't buy it anymore. I would go for other fruit that do looks good".

“Are people even aware of the possibilities that their fruit contains pesticides?” - “Well I think everyone knows that. That’s why you can see these major differences between this normal apple (nr 10) and this silicon apple (nr3)”.

“People don’t want to think like that. They just want to think; when I eat an apple I’m being healthy”.

Some participants see IPM apples as a new niche between regular apples and organic apples, like free-range eggs. It’s probably cheaper than organic and better for the environment than regular apples. Most agree it is very important to communicate clearly about the advantages of these apples. Then there even would be a possibility to sell them through the supermarket. Now only perfect apples are sold at supermarkets.

The opinions on price are fifty fifty. Half of the participants believe price would be the same like regular apples, for there are more (smaller) apples in a kilo and farmers save money by buying less pesticides. Others believe it’s more expensive for it is labor-intensive, and fewer people will buy it (due to its looks) so you have more left over. Besides you’ll need a marketing campaign to explain about IPM which costs money as well. Other believe that maybe the EU will subsidize and price will stay equal.

2.6 Final remarks

When finishing and wrapping up the focus group sessions, participants said they appreciated this conversation and it made them think about a topic they normally don’t really think about.

Especially participants who do not or not often buy fruit at farmers or organic shops did not know the positive effects of pesticide as well as the negative effects. Still they said not to change their buying behavior. Only if there was no other choice. They would always go for the slightly bigger and sound apples even now they know they are sprayed.

Participants who already buy at farms or organic shops had the idea it would be better to tax less healthy products or products that have had chemical treatments. This way organic and IPM products would become cheaper. They find it unfair that products that are better for the environment are more expensive.

3 Conclusion

In the objectives in the introduction, actors of the supply chain said consumers are also citizens and therefore should take responsibility on the impact of their buying behavior. After the two focus group discussions it can be concluded that although some participants are aware of these responsibilities, most participants will continue to behave as 'regular' or 'average' consumers and will not change their current shopping behavior. They still prefer fruit that looks perfect, for a reasonable price and is available at their supermarket. Occasionally they will buy fruit at other outlets.

Participants who already see themselves as conscious consumer are more open and willingly to buy less perfect fruit. They care less about appearances and many of them already have the experience of fruit looking less but with a much better taste.

These conscious consumers also mentioned the use of pesticides already forbidden in the EU but still in use in developing countries. They said to prefer locally produced instead of fruit flown into the country. They believe, next to the use of pesticides, food miles is another important discussion when protecting the environment.

In sum the following conclusions can be made:

- In general, there are mostly positive associations with apples and pears. Even for apples that grow on regular orchards.
- For natural conscious consumers IPM is not in their current buying interest, they will buy organic instead. However, they do believe IPM could be a good idea.
- People who buy regular apples find it very important that apples are sound and without bugs. As long as this can not be guaranteed by IPM, they will continue to buy regular apples.
- For now, IPM seems to be a niche market for people who do care for the environment and care less about perfect looks of fruit.
- Because it is a niche market there is a world to gain. Important in that process is to explain what the added value is of IPM. Not only the added values for e.g. the environment but more important the added value for consumers.
- Make it a win-win product and the possibilities for IPM can expand.

4 Literature

Evers, J. (2007). *Kwalitatief interviewen: kunst én kunde*, LEMMA, ISBN 978-90-5931-074-2

Greenbaum, T.L. (2000). *Moderating focus groups: a practical guide for group facilitation*, Sage Publications, ISBN 0-7619-2043-9

Annex 1

Group animation guidelines

1) Introduction (5')

Presentation of the group animator
Explanation of the research:

Example :

We are carrying out a study at EU level in a program called ENDURE. Our objective is to understand why some products are purchased.

Yes, that's it. Our research is for public research. We are not working for a brand, a retailer or an NGO. You are free to say anything you want about those, everything you think is interesting for us. It is not an exam; there are no bad answers or good answers. We are looking for all possible answers to our questions. Therefore it is what you think personally that is interesting, we don't ask you to represent the French people, men or women, or anything. What is important is what each of you think, therefore THERE ARE NO BAD ANSWERS OR STUPID ANSWERS EVERYTHING IS INTERESTING FOR US.

Of course some things are private, you can decide that you will not answer to one question but you have to keep in mind that this work is not by any means made to make a judgment on what you say. It is because your opinion is important that we take the time to listen to you.

Saying so, we guarantee that your answers will be kept confidential and anonymous; by the way the other participants will only know you by your surname.

You see that there is a tape recorder (or a camera); it is only because I can't remember everything while animating the discussion and I want to be sure not to forget anything. The record will only be for our usage at INRA.

We are (6-7-8), conversation within a group is not obvious this why I will ask you to respect a few basic rules so as we can understand each other:

We speak one after the other. We wait until each one has finished talking. We try avoiding to speak altogether otherwise I will not be able to record precisely who thinks what. We don't speak in little groups away from the main group conversation. We CAN disagree: the objective of the group is not to reach a consensus on one issue or the other but we respect each others' opinions. Of course you can ask questions if something is not clear for you.

Is this OK?

(Answer to questions if there are some)

2) Presentation (10')

I will introduce myself and I will ask each of you to do the same: surname, age, profession, family, hobbies and centres of interests.

(In order to memorise the names: the first one says his/her name for example Paul, ; the second says thank you Paul, and adds his/her name : ex thank you Paul my name is Lea and so on)

3) Pome fruit purchase. Background. General opinions (30').

In italics : comments and sub questions to animate the debate if some issues are not spontaneously mentioned by the consumers.

Questions to all.

Q1) When I say the word "fruit", what are you thinking about?

(Ex: summer, juicy, break, healthy etc)

(The animator writes the answers on a paper board and asks for precisions if necessary for example juicy can have a positive or negative understanding)

Q2) OK and when I say “apples or pears?”

(The animator writes the answers on a paper board and looking at the answers identifies common points and specificities:

If necessary Q2 bis: is there anything that is specific to this type of fruit?

Q3) When you eat apples and pears; is there anything from the words written on the board that you have in mind? Are there any other things?

Write down the answers, if there are not enough, ask people to concentrate on impressions and feelings not on the fruit

Q4) What is important in eating fruit and, particularly, apples and pears?

(Normally a balanced diet and/or health should be mentioned)

The answers are written on the board

To each person:

Q5) Which quality should an apple or a pear have?

Does the origin matters?

Q6) Where do you buy apples and pears?

Why do you choose this type of retail? Is it always the same shop or do you buy apples and pears in other places (markets for example).

Do you buy apples for baking pies in the same place than apples for raw consumption for example?

To all

Q7) Are there any relationships between these elements and what is written on the board?

To all

I am going to mime what I do when I eat an apple. Please tell me if you do the same or if you do it differently.

The idea is to see whether people are washing or peeling their fruit and why

4) Pome fruit production and pesticide use (1h)

To each participant.

Q8) If I mention an orchard, can you describe what you have in mind?

To all

Q9) Have you ever visited an orchard? What was your impression?

Do you know any apple growers? Any fruit seller?

Have you ever talked with them about their work?

What would be the characteristics of a good producer?

To each person: I am going to ask you to write down the answers to the following questions on the piece of paper in front of you. Please indicate your surname.

Q10) Have you heard about pesticide use for the production of apples or pears? On which circumstances? (If this issue has already be mentioned , remind it and go to Q 11)

What were your reactions? Please detail with a couple of words.

Do you think about it when purchasing apples or pears? Please detail.

Q11) Do you think that apple producers use much pesticide?

Q12) More precisely, what can be the impacts of pesticide use?

If there is more than one please order from the most to the less important impact
Summarizing the discussion

*To all: we are going to make a gathering of your opinions about pesticides use impacts: could everybody tell the group what he/she wrote about it, and quickly comment on it?
The animator draws a table on the boards with the comments and groups the positive ones and the negative ones*

| | |
|-------------------|--|
| <i>Impacts</i> | |
| <i>Positive 1</i> | |
| <i>Positive</i> | |
| <i>...</i> | |
| <i>Negative 1</i> | |
| <i>Negative 2</i> | |
| <i>...</i> | |

General discussion using what has just being said:

Q13) You have mentioned X, Y and Z, could we think of other impacts?

For example: health impact for consumers.

Is there any impact in the short term? In the long term? If yes which one?

Are there any impacts for other people?

For farmers and farm workers for example?

In other situations? For neighbours?

- On the environmental impact

You have quoted impacts on

Q14) Can we think about other impacts?

On water?

On animals?

On the air?

Q15) What about glass house issues?

Q16) About positive impacts?

Q17) Finally, is the balance positive or negative?

Q18) What can the consumer do for avoiding or limiting the negative impacts?

The animator writes them down on the board in front of the negative impacts

| <i>Impacts</i> | <i>Consumer's action</i> |
|-------------------|--------------------------|
| <i>Positive 1</i> | |
| <i>Positive</i> | |
| | |
| <i>Negative 1</i> | <i>X</i> |
| <i>Negative 2</i> | <i>Y</i> |
| | <i>Z</i> |

Q19) Is there a way for the consumer to support growers and encourage them to use less pesticide?

If not mentioned:

Are you aware of any label that would guarantee a production with less pesticide use?

Are you aware of any label that would guarantee that there is no pesticide on the fruit?

Any brand? Any retail, any farmer?

Q20) Do you read the information given on leaflets, or posters or tags?

Q21) How does the law protect the consumer?

More precisely:

Does the law require growers to minimize their pesticide use?

Does the law requires fruit with no pesticides on the skin,

Or something else?

Break: (5') during the break apples of the same variety but with different looks and each of them numbered, are put on a table

5) Linking physical quality and conditions of production (40')

Here are some apples each of them with different looks.

To each person: Could you write down on a paper which ones you would buy, of would not (write their numbers). Please mention your surname

To all, for each apple

Q22) Would you buy it? For what reason?

Let the discussion go on for a few minutes and *if a producer is available, he/she could then enter the conversation at this point and explain the links between market demand and quality.*

Q23) Do you know that pesticides are applied in order to prevent these problems?

Do you know that pesticides allow the growth of apples and pears?

...And that growers are paid according to the fruit weight (and size) Show a picture of a grading machine

Q24) Would you be ready to buy smaller apples like this or apples with stains or russetting if you knew that it would contribute to the decrease of pesticide use?

Q25) Where would you buy them? At the same price?

Q26) More generally speaking if a producer starts producing with less pesticide is he/she taking more risks for the commercialisation of his crop? Would he/she have to change his/her retail circuit?

Q27) What could be the impacts of a change of practices at a regional scale?

On the environment, on the economy, for consumers?

Summarizing the discussion

Q28) Finally, on what do we agree? On what do we disagree? Of which information, which element are you lacking?

What was the most interesting part of the discussion?

As you know (this should be mentioned when recruiting) I will get back to you in a couple of days for a quick phone call

Annex 2

Fruit is:

Healthy

Replacement for other tasty things

Lot of work

In between snack

Between 15.30 and 16.00h

Allergy

Organic: better taste

Regular fruit less tasty

Example for your children

Refreshing

Thirst-quenching

Blender: smoothie

Sweet taste

Sour (apples)

Peel (oranges)

Squashed in bag (banana)

Waste

Perishable

Fruit flies

Global

School

Makes me hungry (apple)

Tasty

Fresh

Vitamins

Liquid (in a bottle)

Can't get enough of it to the table

Exotic

Important

Juice

Colorful

Five principal ingredients of a proper diet

Two pieces a day

Seasonality

On the way

Can be pricy (being flied into)\

Vegetable

Wise

Lots of sugar

Affects enamel

Pesticides

Less profit farmer

Greenhouses

Demand rises-> quality goes down

Import

Real Dutch

Market

World product

Annex 3



Apple 1



Apple 6



Apple 2



Apple 7



Apple 3



Apple 8



Apple 4



Apple 9



Apple 5



Apple 10