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**Valorisation of meat production oriented on ‘superior’ quality:  
A case study of Belgian farmers’ motivations**

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# Valorisation of meat production oriented on ‘superior’ quality: A case study of Belgian farmers’ motivations

## Abstract

Quality beef and pork production becomes more and more important for both producers and consumers. We first establish an integrated approach of the different attributes that producers and consumers attach to ‘superior’ quality. This results in the clustering of producers in a traditional and conscious group which reveals relevant differences in attitudes but not in valorisation. On the contrary, the clustering of producers in function of their adherence to a label gives clear differences in labour income. Especially specific labels generate higher revenue because they seem to succeed to communicate credence attributes of ‘superior’ quality to consumers.

## Keywords

Micro Analyses of Farm Firms (Q12), Agricultural Markets and Marketing (Q13)

## 1 Introduction

The European food sector is modelled by society’s evolution. The recent food safety crises (hormones, BSE, dioxin, foot and mouth disease ...) have put strong emphasis on quality production. As European consumers’ expectations become more and more demanding, quality become a keyword for producers as well as consumers (Aumaître, 1999; Vannoppen, 2002).

However the concept of quality is not universally defined and varies considerably depending on the user. Producers tend to associate quality with technical use-attributes or with external aspects of the animals. Consumers on their side are interested in many aspects such as taste, freshness, appearance, nutritional value and food safety (Lassen, 1993; Wandel and Bugge, 1997; Jongen et al., 1999). They have an increasing interest in extrinsic quality attributes such as respect for animal welfare and environmentally friendly production (West et al., 1999; Bernués et al., 2003; Nijland, 2003). Differences and interactions between consumers and producers on these last issues were analysed in De Haes et al. (2004). Most of those newly emerging quality attributes are so-called credence attributes, i.e. product characteristics that can neither be directly perceived nor verified by consumers (Steenkamp, 1989). Instead, people have to put trust in the presence of these attributes, e.g. through confidence in personal communication, labels or controlling organisations.

The role and importance of quality and quality labels in terms of consumer valuation has been investigated by Vannoppen et al. (2004). Health- and safety-related means-end chains were most prominent in hierarchical value map for meat consumption decisions. It was concluded that meat consumers heavily seek for initiatives that reduce the potential health and safety risk. One of such initiatives relates to aiming at ‘superior’ quality from the producer level on.

Traditional market channels are based on industrial coordination. Quality initiatives that can not be comprehended by perceivable quality aspects (e.g. better environment) are not rewarded financially. Verhaeghen and Van Huylenbroeck (2002) consider that there is a need for new organisation structures for production and distribution channels. They find that for all innovative distribution channels, the higher costs are compensated by higher revenue, owing to higher prices, higher turnover and less uncertainty. Further they believe as well that these new organisation structures diminished transaction costs related to traditional sale channels.

This paper focuses on the valorisation aspect of ‘superior’ quality meat production. ‘Superior’ (or differentiated) quality meat distinguishes itself from similar productions by better (than average) or

different quality attributes. In spite of particular focus on quality on both sides of the meat chain, a gap may still exist between the quality desired by consumers and the quality provided by the sector. The objective of this study is to investigate how Belgian consumers and producers perceive different attributes of meat quality, and to confront the consumer expectations with the producer motivation to supply these quality attributes. Both pork and beef producers of Belgium have been included in this study. This study is based on both quantitative and qualitative data obtained from a research project on the subject of 'superior' quality meat perception and valorisation. The project was divided in an exploratory-qualitative research and a conclusive-quantitative research.

First we compare both the producer's and to consumer's view on 'superior' meat quality and establish an integrated approach. Then we cluster producers into several groups, depending on attitude toward 'superior' quality initiatives and on adherence of labels. Finally, we explore what initiatives from the producer are rewarded by a better income. Income of 'superior' quality beef and pork producers depending on their attitude and their label are compared with a reference population.

## **2 Research method**

### *2.1 Exploratory research*

The exploratory research methodology is based on qualitative data obtained through interviews with small samples of both consumers and producers. The purpose of this research is to give insight in the beliefs, attitudes and behaviour of both producers and consumers towards quality of fresh meat as well as their motivations to produce/buy 'superior' quality meat.

In the first place beliefs, attitudes and behaviour were established through focus group discussions on the consumer's side and through depth interviews on the producer's side. Both consumers and producers were half and half from Flanders and Wallonia.

In the second part of the exploratory research the motivations of producers and consumers to produce/buy 'superior' quality meat are explored. The methodology is based on laddering interviews and the means-end chain theory. This technique links product characteristics to consumer values by questioning from product characteristics to user characteristics.

To analyse the motivation of producers to engage in the production of "superior" quality meat, interviews were conducted with 52 Belgian producers who were selected upon criteria of participation in different types of "superior" quality initiatives (i.e. following supermarket prescriptions, following authentic methods and sales through short market channels). The interviews with the consumers were held with 50 responsible for buying food.

The findings of the exploratory research are reported in Verbeke et al. (2004). Producers aiming at 'superior' quality production report taste as the major element of differentiation between 'superior' and 'basic' meat quality. Producers consider credence attribute such as animal welfare and environment friendly production as important as long as they have a real impact on production quality. For example, animal welfare is regarded as very important because it has a critical impact on the quality of the meat. Opportunity of direct contact with consumers (i.e. through sales at the farm or at the market place etc.) is not perceived as a mean to enhance product safety but rather as a social event and a way to improve agriculture's image among the public.

Both naïve and expert consumers attach high importance to hedonic and health values related to meat consumption. These values are linked to sensory, nutritional and hygienic quality of the product. Naïve consumers are mainly concerned about fat (cholesterol) whereas expert consumers also consider other factors such as label, production method or place of purchase. Consumers relate credence attribute to health and safety values and therefore attach importance to these attributes.

It can be concluded that producers and expert consumers do not link 'superior' quality meat with the same attributes. Despite this gap, the comparison of producers' and consumers' results shows that those interested in 'superior' quality seem to find each other through several initiatives. The results of the exploratory research were used to refine the extensive surveys for the conclusive research, both for the content as for the selection of the report holdings.

## 2.2 *Conclusive research method for consumers*

Face-to-face interviews were conducted during Fall 2003 with a quota sample of 339 Belgian consumers. The sample is representative for the Belgian population in terms of age and place of living (rural/urban and region). Key characteristics are: 37% male versus 63% female; 29% aged below 30, 39% aged between 30 and 50, and 32% aged beyond 50; 29% living in major cities versus 71% outside major cities. All consumer respondents were responsible for food purchasing within the household. The survey was oriented towards socio-demographic, behavioural and attitudinal issues with respect to livestock and meat production and consumption. Analyses include identification of 'superior' quality attributes of meat and factor analysis of attitudes.

## 2.3 *Conclusive research method for producers*

Producer data were collected through face-to-face interview with producers selected within the farm accountancy data network of the Centre for Agricultural Economics (FADN-CAE) of Belgium. The selection was based on preliminary survey of all farmers with a significant meat production activity connected to this network and who obtained a minimum quality score (249 beef producers and 174 pork producers). The livestock producers with the highest quality score were surveyed during fall 2003. The purpose was to examine a group of producers tended to 'superior' meat quality. Face-to-face interviews were performed with 37 beef and 26 pork producers during fall 2003.

The survey collected statements that measured producer's behaviour and attitudes towards different aspects of meat production and quality as well as quantitative data about production methods. The farm accountancy data networks provided reliable quantitative information on economical results of the selected farms during several years.

According to their statements producers' attitude and behaviour towards 'superior' quality meat were established. The scores obtained for the different statements were aggregated into one aggregated construct score if Cronbach  $\alpha$  exceeded 0.6. Cluster analysis was used to group producers with the same attitude. Principal Component Analysis (PCA) and ANOVA were used to characterize each 'attitude' group.

Next producers were sorted out depending on the kind of label in which they participate. Labels can be divided in two sorts: 'retail labels' and 'specific labels'. The 'retail labels' mainly focus on traceability and quality control whereas 'specific labels' focus on specific production method or on regional development. PCA and ANOVA were also used here to characterize each of the three groups: producers without label; producers with 'retail label' only; producers with 'specific label'.

The farm accountancy data network was used to perform the analysis of 'superior' quality producers' economical results. Comparison of economical results was based on farmer's annual income per animal (beef) or per animal place (pig), it was calculated for each 'attitude' and 'label' group. All group results were compared with a reference population consisting of all the representative non-survey beef and pork producers of the farm accountancy data network. All statistical calculation was performed with SAS software.

## **3 Attributes of 'superior' quality meat**

Both the exploratory and conclusive research method gave insights in the beliefs and attitudes of producers and consumers. They were all linked to quality attributes. These quality attributes and their different meanings were then assembled in a 'quality matrix' for either consumers or producers. Finally the attributes were confronted in a so-called 'integrated quality approach'. This approach (see Figure 1) shows the disparity between producers' and consumers' idea of 'superior' quality. As revealed in the figure below three types of attributes exist.

In the middle of the figure are the attributes used by both groups with the same meaning. These criteria represent the standard quality such as food safety and sensorial aspects. They are unconditional

attributes for the meat to be sold. Food safety refers to health values, while sensorial criteria refer to hedonic values. These are the two core values behind the purchasing process of meat.

Next to those attributes stand criteria used by both groups but that do not hold the same meaning for producers as for consumers. These characteristics as nutritional value, production method, label and point of sale describe rather a ‘superior’ quality. They create confusion between both parties because both groups give a proper meaning to each criterion. For example ‘animal welfare’ and ‘environment’ represent quality attribute for both. However, producers essentially see animal welfare as an important production factor which can influence technical and thus economic results while consumer’s interest in animal welfare is mainly related to ethic values (see De Haes et al., 2003, for an elaborated discussion on value-related aspects of meat quality). Environment though has no influence on intrinsic quality. Both animal welfare and environment are credence attributes for consumers. The integration of these different visions on quality is essential for the valorisation of ‘superior’ quality meat.

Finally some attributes are used by producers or by consumers only. However these attributes do have an influence on meat quality. In this context communication between consumers and producers could help both groups to comprehend all attributes of ‘superior’ quality meat.

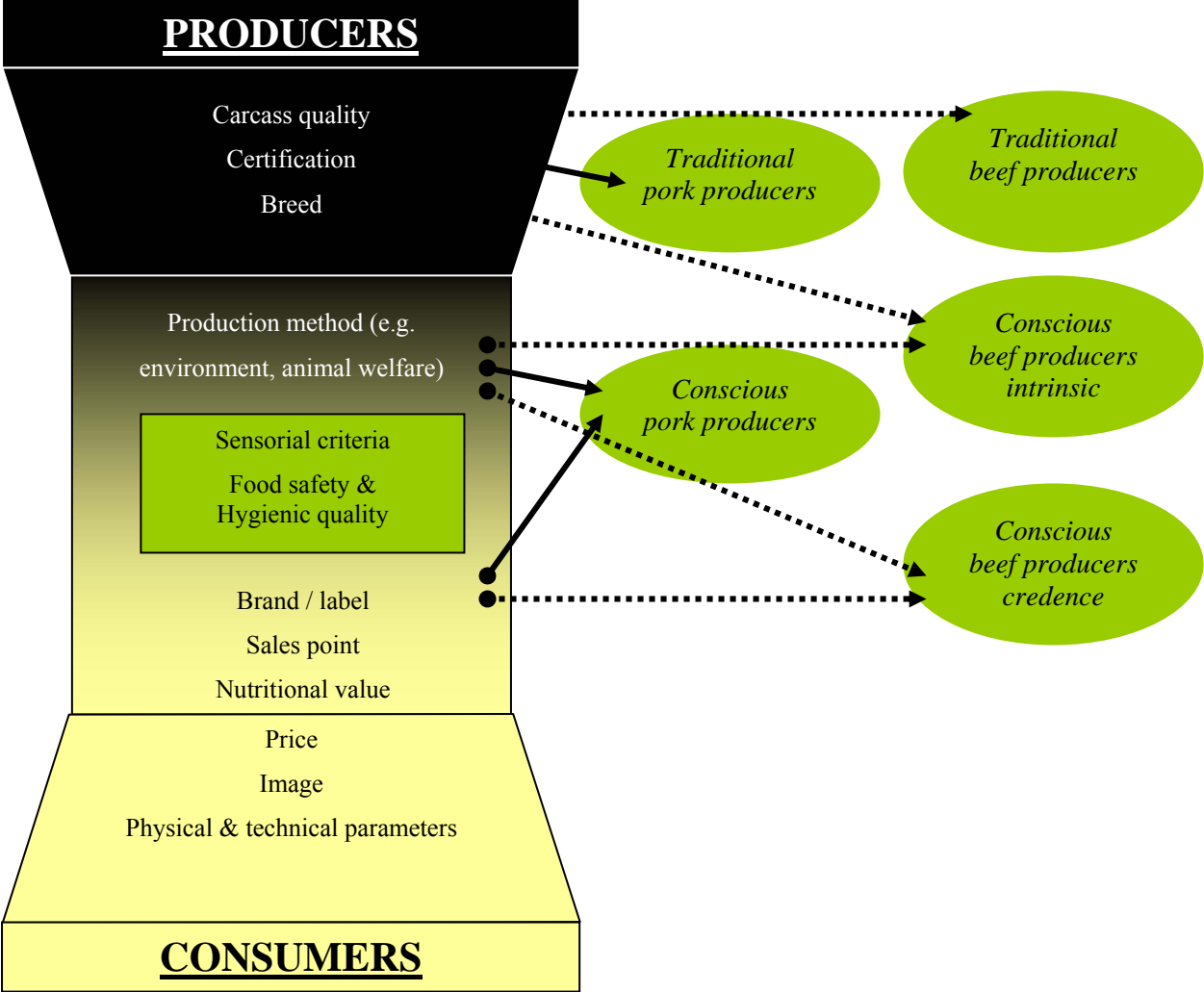


Figure 1. Integrated approach of ‘superior’ quality meat from producers and consumers view and the related clustering of producers

Of course, several attributes are linked to each other. The breed is an essential determinant for the meat taste and some technical parameters, and price can be an important indicator of the quality sold, although it is not evident to establish a clear relationship between price and quality.

Following the classification of Steenkamp (1989), we can conclude that producers are more interested in intrinsic attributes, while consumers are more oriented towards credence attributes. These attributes will be used for the clustering of different producer segments.

#### **4 Producers' clustering in function of their attitude towards 'superior' quality**

The clustering of producers based on their attitude towards meat production and 'superior' quality revealed two clearly defined and homogeneous groups. Although this segregation was done separately for beef and pork producers the results are similar: one group of producers has a pro-active attitude towards quality while the other is rather conservative. They have been named accordingly 'Conscious producers' group and 'Traditional producers' group. All producers were selected from within the farm accountancy data network of the Centre for Agricultural Economics (FADN-CAE) on 'superior' quality criteria.

The clustering is based on the 'statements' data from the survey that were linked to attitude towards meat production and 'superior' quality. These statements conclude attitude towards environment, animal welfare, general quality, cost, intrinsic quality, feedback, experimental behaviour, labels, innovative distribution channels, on farm sale and consumers. Some data were transformed in a score. Where appropriate, the statements were reduced to construct variables for the clustering procedure. The reduction was made using the Cronbach- $\alpha$  coefficient. If the coefficient was above 0.6, the construct was adopted. Reduction was harmonised for beef and pork producers. The Ward-algorithm was used for the clustering procedure. Ultimately, two groups were kept for both beef and for pork producers.

Behaviour and attitudes of each group were analysed. The analysis was made observing the groups' average answer to statements and constructs related to quality and meat production. Significant differences between groups were tested by the ANOVA method.

##### *4.1 Pork producers*

The Traditional group gathers about two thirds of the farmers (64%) who follow either a retail label or have no label at all. One third of the farmers (36%) are part of the Conscious group, all farmers with a specific label are present in this group.

The Conscious producers have a stronger positive attitude towards animal welfare. They take initiatives that enhance animal welfare such as group stabling for sows. They also believe that labels secure environmental friendly production. They have a very positive attitude towards consumer' expectations, labels and feedback. They try to improve their contact with the consumers amongst others by on-farm sales.

The producers with a Conscious attitude believe production by-factors such as pasture or partners have a large influence on meat quality. Traditional producers do not take those criteria into account. They rather rely on factors like expert use of drug prescription to influence the quality of the meat. The Traditional producers still have a positive attitude towards animal welfare, environment, consumer' expectations, labels and feedback. But contrary to the other group, they stand negatively towards labels, new sale channels, and on farm sales.

##### *4.2 Beef producers*

About half of the farmers (51%) was clustered in the Conscious attitude group and thus the other half (49%) in Traditional attitude group. There is no clear distinction concerning the adherence at a label in between the two groups.

The Conscious group has a more positive attitude towards labels; producers believe that they secure a higher selling price and enhance animal welfare. Conscious farmers show the strongest

interest in environment friendly production and believe labels do ensure animal welfare is considered to have a strong influence on meat quality. Conscious producers also believe that consumers show interest in labels.

Both groups believe that labelled-meat is safer because of repeated inspections. In spite of this believe they do not acknowledge production with labels to be different than production without labels.

Conscious producers are significantly more interested in consumers' expectations and needs. However, only some of them declare having a better contact with consumers by means of their quality initiatives. Both Conscious and Traditional producers consider free of hormones and price to be the more determining characteristics looked for by consumers.

Traditional producers feel much more concerned about costs and foreign competition. Conscious farmers on their side are much more interested in direct sale to consumers. They also think that superior quality production leads to a higher selling price. Both groups consider media to have the strongest influence on future superior quality production.

The beef Conscious group assembled producers aiming at 'superior' quality by technical and by credence strategy. Technical producers tend to improve technical factors such as slaughtering age, feeding, breed, etc. in order to produce 'superior' quality. Credence attitude producers on their side develop more consumer-like criteria such as animal welfare, environmental friendly production or rural development. Credence attitude producers are also much more interested than technical producers in direct contact with consumers, for example by selling meat on the farm or on market. Because they use criteria defined by the consumers themselves and because they strive to interact directly with consumers, credence attitude producers have a much better communication with consumers. Technical producers on the other hand stand on the farther side of the integrated approach from consumers (see Figure 1). Consumers do not commonly understand the criteria that technical producers find important, which is enforced by the fact that these producers do not seek to communicate with the consumers.

## **5 Producers' clustering in function of their adhering to labels**

The producers were sorted out depending on the type of label that they follow, three groups were made: producers without any label; producers with a 'retail' label; and producers with a 'specific' label. As explained before, retail labels are labels used by supermarkets and retail buyers; they focus on traceability and hygienic quality control. Retail labels are very similar to legal norms, they involve limited additional obligation on the producers side. Specific labels on their side demand much higher constrains on the production than legal norms, especially on extrinsic quality attributes.

Next, the attitude and behaviour of each group were analysed, significant differences between groups were identified through ANOVA procedure. In general and logically, the differences between groups are much less significant than the clustering in function of attitudes.

### *5.1 Pork producers*

Most of the surveyed producers (42%) follow a retail label, 35% follow no label at all and 23% follow a specific label. Producers with a specific label have a more positive attitude towards animal welfare, environment friendly production and labels than their colleagues. These criteria matter the most for consumers. Further, these producers show stronger interest in selling their production themselves. The behaviour towards animal welfare is a very important production factor for producers with a specific label.

Producers without a label and with a retail label have similar profiles regarding attitude towards quality. Labels seem to enhance a security feeling for producers. Indeed, only producers without a label feel worried about the future of their production. But they do not believe that labels give a higher standard for control, environment, animal welfare or quality. Of course farmers with a label do believe this.



## 5.2 *Beef producers*

Most of the farmers of the survey (63%) follow a retail label; 20% of the farmers follow a specific label and 17% have no label at all. As can be expected, producers with a label put more expectation in labels than producers without a label. Similar to pork producers, they believe labels to be an important buying factor for consumers and that labels can regain consumers trust in meat production. Labels and especially retail labels give producers a feeling of protection towards meat-sector crises. On the contrary, producers without a label consider those crises as the greatest threats to their production.

Producers with a label believe labels enhance animal welfare. Producers with specific label have the strongest attitude towards environment friendly production. Those farmers are also much less concerned than others about production costs.

All producers believe that labelled-meat is more inspected and therefore safer. Despite that, they do not consider labelled-meat to be of higher quality than unlabelled-meat. Moreover they declare that production with or without labels is very much identical. Finally they do not believe that labels secure a higher selling price.

## **6 Valorisation criteria for producers**

Valorisation of quality can be realised through product differentiation or the choice of the sales channel. The offered quality should be clearly differentiated to avoid confusion of the consumer. There should be no brand or label for a group of different products without a good control system or strict product and production specifications. Additionally a well established organisation of the chain is important.

Valorisation criteria are much the same for beef and pork producers. Following the survey, farmers report 'satisfaction about their own production system' as the most important factor of 'superior' quality production. Next they report the higher selling price and the security of selling the meat. The factors that are not much perceived as implied by 'superior' quality production are a guaranteed selling-price and a better contact with consumers. Here the situation can vary depending on the group of producers, for example beef producers of the 'credence quality' attitude group do assert that their 'superior' quality production leads to a better contact with consumers. This group also considers a better contact with consumers as a very important factor that enhances the valorisation potential.

Most of the animals, both in beef and pork trade, are sold on basis of the carcass quality. Yet, most of the pork producers (88%) systematically receive a feedback on the quality of the carcass of their slaughtered livestock while only 35% of the beef producers receive such a feedback and 46% never receive any. It seems that pork producers consider carcass quality as a more important quality attribute than beef producers.

Many producers follow a retail label in order to improve the valorisation of their production. Farmers value those labels because they do not imply additional investing and they are perceived as to reduce risk. Indeed they are often asked for by retail buyers or by supermarkets, which are sales channels characterised by a large rotation and turnover. Producers declare that during crises retail labels secure a higher selling price than the market price. Consequently, by joining a retail label and selling to large retail chains producers secure the selling of their production and protect themselves against crisis, therefore reducing the risks. These channels are mainly used by 'superior' beef producers; 68% of the animals are sold through retail chains, while only 23% of 'superior' pork-meat producers use this type of outlets.

Few producers sell their production through short channels such as on-farm sales or direct sales to butchers. These channels are more rewarding but often smaller in terms of rotation and turnover. Many producers say they would like to join those channels but it would not be able to absorb all their

production. They declare that the strongest obstacle to joining a short channel is the investment in time and money. However, many producers, especially pork-producers, are not interested in searching for new or shorter selling channels: most of them declare selling not to be part of their profession. Some of the short chains are linked to a specific label. This can be interpreted as a solution to reduce transaction costs (Mormont et al., 2001).

It seems that short chains and specific labels perform the same ultimate role as communication-link between consumers and producers. When a product with a specific label is sold through short chains the communication is even stronger. This combination is the strongest to win consumers' trust and convince them of the 'superior' quality of the product. Especially when value-related aspects such as animal welfare or environment are important attributes, direct communication with consumers is important (De Haes et al., 2004).

## 7 Valorisation of 'superior' quality meat production

To establish the valorisation of 'superior' quality meat production, this paper tries to discover what kind of initiatives are rewarded by a better income. Two aspects have been inspected: the attitude towards quality and the adherence of a label. Producers have been sorted out in 'attitude' and 'label' as described before. The calculations of economic results were done separately for pork and beef. All group results were compared to a reference population consisting of all the representative non-survey beef and pork producers of the farm accountancy data network (see also Bosmans et al.; 2001).

### 7.1 Economic results in function of adhering to a label for pork producers

The results were analysed for three years, 2000, 2001 and 2002. The previous year, 1999, was not used because of the dioxin crisis. The years before, most labels were not in use yet. Some farms of the survey had to be eliminated of these calculations because of their small size or incomplete data. The economical results are shown on the table below and were examined for the three following groups: no label (8 farms), retail label (11 farms) and specific label (5 farms). The reference population counted 191 farms.

Table 1. Economic and technical indicators of finishing pig farms for reference population and different label groups, 2002

Indicator	Reference population	Survey	No label	Retail label	Specific Label
Number of finishing pigs per farm	679	810	1007	938	212
Mortality (%)	4,3	3,6	3,9	3,1	6,8
Fattening period (days)	147	144	145	143	154
Price concentrate feed per kg (€)	0,189	0,185	0,18	0,186	0,204
Feed conversion	3,11	3,15	3,25	3,05	3,32
Cost per kg meat (€)	1,12	1,11	1,1	1,11	1,19
Retail price per kg meat (€)	1,33	1,34	1,34	1,33	1,47
Total returns per APFP* (€)	216	223	228	218	239
<b>Labour income per APFP* (€)</b>	<b>58</b>	<b>63</b>	<b>67</b>	<b>60</b>	<b>69</b>
<b>Labour income finishing pigs per farm (€)</b>	<b>39.531</b>	<b>51.370</b>	<b>67.519</b>	<b>56.271</b>	<b>14.673</b>

(\*): APFP = average present finishing pig

The main difference between the different groups is the size of the farms (see Table 1). Farms with a retail label have a lot more finishing pigs (about 940) than farms with a specific label (about 210), which of course influences directly the farms revenue for finishing pigs: almost 15.000 € for farms with a specific label against 67.500 for farms without a label. Farms with a specific label have higher numbers for all other indicators, including the highest labour income per APFP.

Farms from the survey have a better income per APFP and per farm than the reference population. This seems logical because they were selected on 'superior' quality criteria which should give better performances.

Farms without a label have higher revenue than farms with a retail label or farms of the reference population. This is mainly due to the lower price of concentrate. Analyse of 2000 and 2002 confirms this hypothesis. Most of these farms though, just recently acquired a label, so it might be too early to conclude. Data of 2000 explain more about the profile of these farms, namely big sized and cost efficient.

We hardly found any difference between the different groups and years for slaughter weight (108 kg). The analyses of socio-economic data (like farmer's age) did not give any significant differences.

Farms with a retail label do not generate more return per average present finishing pig (APFP) compared to farms with a specific label. In those last farms, the returns are compensated by a higher cost, but even then, they have the highest Labour income per APFP.

The differences in size between the different groups results in much higher farm revenue for the branch pork production in farms with a retail label. Farms without a label have slightly higher number of finishing pigs, and a higher Labour income than this last group. This results in the highest farm revenue for the branch pork production of the survey.

These results report only on a period of three years, while prices in the pig sector are volatile due to the pig cycle. Prices in the observed period were relatively high.

In general, the revenue per APFP for the different groups follows a similar evolution, except in 2002 when producers with a specific label have a higher income. These producers have a higher income per APFP through the considered period. On the opposite, producers with a retail label together with the reference population have the lowest income.

It is remarkable that the surveyed producers without a label, but selected in function of their 'superior' quality production have in the whole period a higher income than these two last groups. As can be expected, producers of the survey without a label are significantly less sure of the price of their product than producers with a label.

## 7.2 Economic results in function of adhering to a label for beef producers

The results were analysed for the three last available years in the farm accountancy data network: 1999, 2000 and 2001. As for pigs, the economical results are shown on the table below and were examined for the three following groups: no label (6 farms), retail label (22 farms) and specific label (7 farms). They were compared to a reference population of 65 farms.

Table 2. Economic and technical indicators of beef farms for reference population and different label groups, 2001, per farm

Indicator	Reference population	Survey	No label	Retail label	Specific Label
Number of animals (AU*)	51	95	60	105	104
Total returns without premiums (€)	38.473	76.591	43.011	85.349	91.070
CAP premiums (€)	14.420	32.298	16.735	35.793	35.978
Other premiums (€)	450	841	390	594	2.398
Costs	32388	63197	31248	71258	75838
<b>Labour income (€)</b>	<b>20.956</b>	<b>46.533</b>	<b>28.887</b>	<b>50.478</b>	<b>53.607</b>
<b>Labour income per animal (€/AU)</b>	<b>503</b>	<b>517</b>	<b>493</b>	<b>507</b>	<b>624</b>
<b>Total Labour income per farm (€)</b>	<b>48.056</b>	<b>53.916</b>	<b>47.387</b>	<b>56.397</b>	<b>57.035</b>

(\*) AU = Animal Unit

Table 2 shows that the two groups with label have approximately 100 animals (Animal Unit or AU) while both the reference population and the group without label have between 50 and 60 (AU). Obviously, the labour income is proportionally higher in the label groups than in the others. The farms with a label are groups specialised in beef production which defines almost 100 % of their income. For the other farms, this is hardly the half.

When comparing economical results of producers without label or with either type of label, we found significant difference between groups. The analyses of socio-economic data (like farmer's age) though did not give any significant differences.

On the contrary with pig producers, the beef producers without a label have the lowest labour income per animal. Producers with a specific label show the highest. Producers with a retail label have middle economical results that are close to those of the reference population. The valorisation for these last producers lays not in a higher selling price, but rather in a guaranteed sale.

The higher labour income per animal for farms with a specific label can be explained by their higher returns without premiums and by their 'other premiums'. These premiums are mostly related to initiatives that improve environment. Even if it is not clear that consumers are ready to pay for credence quality attributes like environment, government is.

Figure 2 illustrate the evolution of the labour income per animal (AU). The income for the different group seems to converge to one point, except for the specific labels that continue to give higher revenue.

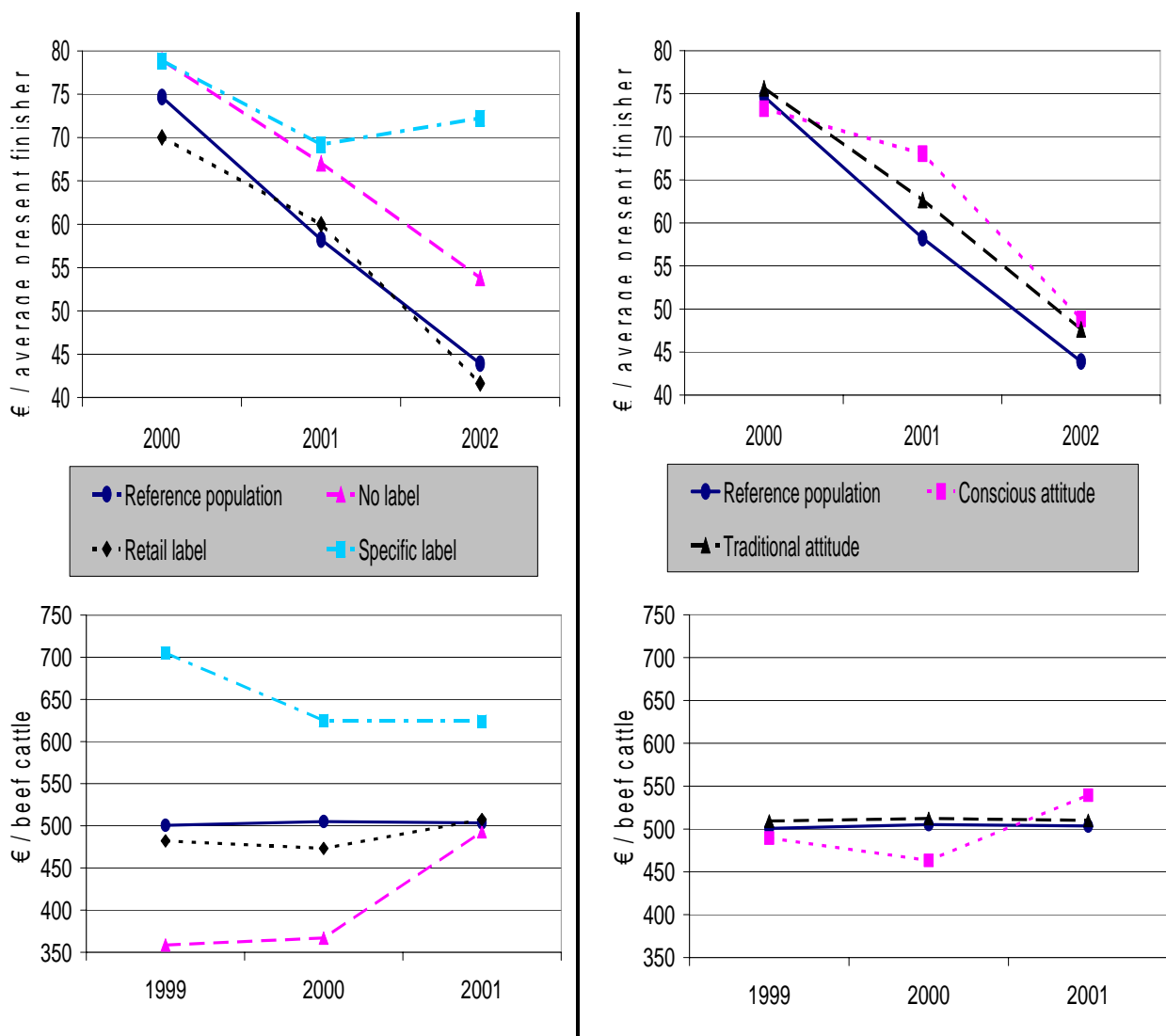


Figure 2. Labour income for respectively pork and beef producers, clustered in function of quality attitude and label, and reference population, € per animal (2000-2001 for pigs, 1999-2001 for cattle)

### 7.3 *Economical results in function of attitude for pork producers*

This division lead to fewer differences in economic and technical indicators than the division in labels. Therefore only the results for the latter are represented in a table. Conscious farms are in average smaller (about 400 average present finishing pigs or APFP per farm) than traditional farms (about 1000 APFP per farm).

Figure 2 shows the similarity in labour income for the producers with a traditional and a conscious attitude. These last farmers do not succeed in valorising their production with ‘superior’ quality.

### 7.4 *Economical results in function of attitude for beef producers*

As for pig producers, the division into attitude gives few differences amongst the different groups. Because of the severe market crisis in the beef sector during 2001, the results of this year has to be interpreted with precaution. Even so, the figure shows only limited evolution and surprisingly no decrease of the income in 2001. Farmers might have sold younger animals.

During the years 1999 and 2000, the proportion of the premiums in the labour income is 46% for the reference population. It is only 31% for the traditional producers but 51% for the conscious producers. In 2001, the proportion of the premiums in the labour income increases till 71% for both the reference population as for the survey.

## 8 Discussion and conclusions

This study investigated both producer and consumer views towards quality aspects from meat production. Several methods were used: literature, focus groups, laddering interviews, face-to-face interviews and a large scale survey. We found significant differences in the view towards ‘superior’ quality and its valorisation.

The **integrated approach** of ‘superior’ quality meat from producers and consumers showed three different groups of quality attributes:

- Essential attributes related to a food safety and taste that are similar for producers and consumers. These are unconditional attributes for the meat to be sold.
- Attributes in common for producers and consumers but with a different meaning;
- Attributes that are used either by consumers or producers.

Farmers relate meat quality with the intrinsic quality aspects of meat or with factors influencing these intrinsic quality aspects directly, e.g. animal welfare. Environmental issues are not considered as quality-enhancing from the producer’s point of view. Major differences are discovered between pork and beef producers. Due to several crises in the beef production (hormones, BSE, foot and mouth disease) in the ’90, labels oriented towards traceability and control were introduced to restore the consumer confidence. Especially in Belgian pork production, specific labels seem able to differentiate from retail labels and labels oriented towards traceability and control.

The **clustering of producers depending on their attitude** gave a traditional and a conscious attitude group. However, we remind that all producers were selected upon criteria related to ‘superior’ quality. The segmentation of pork producers gave two very clear and homogeneous groups. There were more nuances in the groups of beef producers. The conscious beef producers group could be divided in two sub-groups: one with a technical, intrinsic strategy and another with a credence strategy. The technical strategy focuses on aspects as age, feed and breed, which will not directly appeal to consumers. As such, ‘superior’ quality risks not to be recognised by consumers. Producers with a credence strategy try to adapt themselves to demands of the consumers. They orientate towards specific labels and direct sales.

**Producers were also grouped in function of their adherence to a label:** specific, retail and no label. Specific labels mainly communicate on attributes used by both consumers and producers but with a different meaning for each of them such as animal welfare or environment friendly production. These are often credence attributes. Specific labels enable consumers to recognise quality initiatives even though the significance of those attributes is not uniformly understood. Such a communication is lacking for the attributes used only by the producers.

Production systems do not differ essentially between farms with and without labels. For the producers, the main aspects that influence meat quality are: age, feed, breed, animal welfare and the management of the husbandry.

This paper focuses on the **valorisation of ‘superior’ quality meat production** and strives to discover which initiatives are rewarded by a better income. Two aspects have been inspected: the attitude towards quality and the adhering of a label. The calculation of economical results was done separately for pork and beef, however the results show remarkable similarities.

No differences can be found between the economical results of producers with **conscious and traditional attitude** towards quality. There is a clear gap between intentions and surplus value. The evolution of the annual income per animal for beef and pork producers show no significant difference between these groups. Statements of the producers surveyed confirm this hypothesis. This indicates that a positive attitude towards ‘superior’ meat quality does not enhance a better income. The lack of communication and the gap in the interpretation of the ‘superior’ quality can be an important reason, as we showed with the integrated approach of the view on ‘superior’ quality.

When comparing economical results of **producers without label or with either type of label**, we found significant differences between groups. Indeed beef producers without label show the lowest income per animal while producers with a specific label show the highest. Producers with retail label have average economical results that are close to those of the reference population. Consumers consider retail labels rather as related to traceability and food security, but not clearly to ‘superior’ quality. Farmers from their side think labels lead to more income security.

The analysis of pork producers shows similar results: specific labels offer the best income. The analysis raised one remarkable matter. The surveyed pork producers without a label, but selected in function of their ‘superior’ quality production have in the whole period a higher income than the reference population and the producers with a retail label.

A major challenge for producers lies in keeping interested consumers to consume, and convincing them of ‘superior’ quality. For these consumers, producers should further stress on value-related aspects (credence attributes) and short channels. The development and promotion of specific labels could form an answer for particular consumer segments. Quality production and consumer orientation are key terms for the future of agriculture and meat production. ‘Superior’ quality is rewarded with a better income, if the consumer this effectively perceives. With few efforts, ‘superior’ quality could be better marketed.

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