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French people's willingness to pay for farm animal welfare

K. Latouche

INRA, Unité d'Economie et Sociologie Rurales, Equipe Politique Environnementale et Risques, rue Adolphe Bobierre, CS 61103, 35011 Rennes cedex, France

Email: latouche@roazhon.inra.fr

Abstract

This paper deals with French's concerns about Farm Animal Welfare (FAW) and their Willingness To Pay (WTP) to support FAW improvement. To elicit respondents' WTP, Contingent Valuation Method (CVM) was used, whereas this method is still criticised. The problem of such a method is to understand the valuation of the new attributes of livestock products made by the respondents because of an improvement of FAW. We don't know neither if respondents reveal an use value, an existence one or a mix of these two values, nor if their valuation reflect a private preference or their public choice, that is to say that they act as citizens. This survey, interviewing 1009 persons, shows that French people state a great concern about FAW. Some production systems have clearly been classified as unacceptable. French producers and public decision makers will have to take into account these results. They are in fact a good indicator of French public opinion and assess the perceived benefits of farm animal welfare policies. An econometric model aiming at determining the main variables which explain the WTP elicited to support improvement of veal welfare is proposed. Because of a high rate of acceptability of the hypothetical scenario, only 5 % of respondents reveal a null WTP. Hence, the probit model, explaining the decision to pay or not, has a very low explanatory power. Values chosen by respondents are better explained, using a regression. It reveals a great impact of frequency of veal consumption and a main role of opinion variables, reflecting the importance of information on real breeding conditions for FAW valuation.

**INRA - ECONOMIE
DOCUMENTATION**
Rue Adolphe Bobierre
CS 61103
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Farm animal welfare: French perception through Contingent Valuation

Method

K.Latouche

INRA, Unité d'Economie et Sociologie Rurales, Equipe Politique Environnementale et Risques, rue Adolphe Bobierre, CS 61103, 35011 Rennes cedex, France

Email: latouche@roazhon.inra.fr

Introduction

Farm Animal Welfare (FAW) has become a major policy issue in European Union in recent years. The United Kingdom has played a key role in promoting cause of animal welfare and it continues to be strengthened, by scientific advice of FAW council and by FAW interests groups lobbying (Bennett, 1996). Facing a growing concern in North European countries and a consumer pressure, for example by a growing demand for free-range animal products (Winter & al, 1998), legislation has been one of the main responses to this growing concern. In 1992, FAW issue was under the treaty of European union in a declaration on the protection of animals binding on all EU Member States (Council of the European Communities and Commission of the European Communities, 1992).

Today, Member States have to implement European directives (86/113/CEE for hens, 91/630/CEE for pigs, and 97/2/CEE for veal). But to assess FAW policy, as for any policy, costs and benefits have to be valued. This paper deals with benefits of FAW issues. Because the benefits have the characteristics of non-market goods, it is necessary to use specific methods such as Contingent Valuation Method. As Bennett has stated,(Bennett, 1996), this method can be applied to evaluate benefits of Animal Welfare issue estimating the value respondents would be prepared to pay for it.

Whereas this method seems to be the most adjusted to the good considered here, two main types of criticisms are still available on it.

Firstly, FAW can be valued by respondents as a use value or a non-use value (or existence value). If respondents consider that improvement of FAW improves also quality of livestock products (that is to say as a use value), then the commodity to be valued is well defined and the CVM is reliable (Lazo & al, 92). But if respondents accept to pay to buy an ethical or moral satisfaction, the commodity to be valued is no more well defined or centred and the choice of the vehicle of payment remains problematic. One of the main problem in valuing FAW issues is that they can be considered as improving livestock products quality and improving moral satisfaction of the respondents. The survey used to study this subject must then take into account these two aspects of FAW issues.

Secondly, the main assumption of CVM is that responses to CV questionnaires may be interpreted as expression of respondents preferences. However, after the BSE crisis beef was still bought in large part in supermarket at cheap prices, whereas people interviewed in a CV survey reveal a high willingness to pay to get safer beef (Latouche & al, 1998). In fact, results to CV surveys compared to actual behaviour seem in most cases paradoxical. These situations show that public motivations rather than private ones are involved (Blamey & al, 1995). People answer to CV surveys as voters instead of consumers, because of a great ethical concern. Over the quality impact on livestock products that can be valued by respondents, the improvement of FAW can also improve a moral satisfaction. Then respondents may answer CV surveys as citizens. Hence, their willingness to pay reflect what they think to be a reasonable decision by the government (Johansson-Senman, 1998). Even if those responses are considered as biased by CVM detractors, governments and public decision-makers have to take these responses which prove ethical motivations about animal welfare issues into account.

Method

A sample of 1054 persons was interviewed during summer 1998. On the whole questionnaires administered 1009 were completed and usable. The questionnaire asked about four main types of information.

The first part deals with concerns about FAW. Some opened-questions are asked to determine the knowledge of people about the current ways farm animal are bred. Respondents have also to state the breeding conditions which seem unacceptable to them.

Then an hypothetical scenario is presented to them. It aims at eliciting their WTP to support an improvement of FAW. The way of improving it is an increase of crates used for veal, pigs and hens. The vehicle of payment used in this survey is an increase of the livestock products prices to compensate the increase of producers' costs. The livestock products considered are: one Kg escalope of veal, a dozen eggs, one Kg of white ham and one Kg beef (steak cut from the ribs). The currents prices of these products are given.

Respondents are then asked about their livestock product consumption habits. Especially, the frequency of consumption of diffrent products are stated.

The last type of information asked is related to the socio-economic variables of respondents.

Results

Over the 1009 respondents , 52.2 % were women. The distribution of the respondents according to their age is homogenous. People more than 65 years old represent 20% of the respondents and constitute the most important class of age. 58.6 % of the respondents are married, and 52.8 % have no child at home.

Among the sample, 50.2 % of respondents have employment. Most of respondents who are unemployed are retired (47.4 %) or housekeeper (23.9 %).

As for the level of education, according to the International Standard Classification of Education of UNESCO, 14.8 % of the respondents have a diploma corresponding to compulsory education, 24.3 % to lower secondary education, 10 % to upper secondary education and 39,4 % to higher education. 9.8 % have no diploma. Most of respondents (58.5 %) have got pets.

Concerns about Farm animal welfare

The first part of the survey reveals a great concern of respondents about farm animal welfare. 81 % of the respondents have ever heard that farm animals may be mistreated or suffer during the production process (breeding, transporting and slaughtering) . Most of them heard about it on TV news (73.5 %) or on other TV broadcast (31 %). Around 73 % of respondents feel concerned in breeding, transporting and slaughtering processes of livestock. The most worrying query is breeding process for 42.7 % of respondents, transporting process for 32.1 % and slaughtering for 17.1%. Only 8.2% of respondents don't worry for any of these three queries.

Open questions have then been asked to determine respondents' opinions about current agricultural processes. Respondents still remain very concerned by BSE crisis. 26.1% of respondents state unacceptable that farm animals are badly food. In fact, they condemn the process leading to feed cows with animal meals. Other unacceptable agricultural practices are use of battery for 21.8 % of respondents, confinement for 20.4 % and intensive processes for 19.2 %.

At last, respondents were asked to state how acceptable or unacceptable they consider specific aspects of livestock production systems to be. For 57 % of respondents battery egg production where hens are kept in small cages is very unacceptable. For 66 % veal production with calves kept in confine crates is very unacceptable. Only 14.5 % and 9 % respectively consider these systems as acceptable (relatively or completely).

Willingness to pay to support improvement of farm animal welfare

An hypothetical scenario is presented to respondents. It proposes improvements of production systems by increasing size of crates and cages , for veal, hens and pigs. But these improvements also increase production costs. Around 80 % of respondents state that they would support products from such production systems. People refusing to support them state that the increase in costs has not to be paid by consumers (24.2 %) or that the taste of such products will not be changed (15 %).

Questions about willingness to pay (WTP) to support improvement in FAW have a high rate of acceptability. Around 80 % of respondents agree to pay higher prices for livestock products coming from production systems improving FAW.

For one Kg escalope of veal at FF 80. initially, the mean WTP is FF 17.8 high, which represents 22% of the initial price. Only 5 % of respondents refuse to pay and state a null WTP.

For one Kg White ham at FF 60 initially, the mean WTP is FF 19.6 high and represents 33 % of the initial price. 13 % of respondents state a null WTP. The rate of acceptability is lower than for veal.

The same happens for a dozen eggs. The initial price is FF 15 high. The mean WTP reaches FF 16.9, with a very high standard deviation. It represents 112% of the initial price, which is very important. But respondents with a null WTP represent 16 % of respondents.

For one Kg steak cut from ribs whose initial price is FF 80 high, the mean WTP is FF 16.9. It represents 21 % of the initial price. It is the lowest WTP in percent. Around 13 % of respondents state a null WTP for this product.

For all these WTP questions respondents provided statement of reasoning for their responses. People highly concerned about FAW in the first part of the survey are those who accept a high WTP. These results are particularly consistent for improvement of veal production system. There is a higher degree of consistence then for the other products.

Explanatory factors of the WTP

An econometric model is proposed to explain the value elicited by respondents to support improvement in animal welfare. This model deals with WTP to support increase of veal crates, because of a higher degree of consistence of responses than for other products.

The model used is a tobit model. The estimation procedure is the Heckman's procedure. It distorts the decision process in two steps. The first step deals with the decision to pay to improve FAW or not (probit model) and the second one deals with the choice of the value of the WTP (OLS regression).

For one Kg escalope of veal, only 5 % of respondents state a null WTP. Hence, the information usable to determine the main variable of the decision process to pay or not is very weak. Only two variables are identified as playing a key role by the probit model. The first is age. People between 35 and 44 years old are supposed to refuse to pay in greater proportion than people over 65. People belonging to other classes of age have not a significantly different behaviour from those more than 65. The second is the degree of concern in farm animal welfare. As expected, people not concerned at all by this topic are supposed to refuse to pay in higher proportion than those very concerned.

The second step reveals 7 main variables playing a key role in determining the value of the WTP. Age and income have a low impact on this value. The frequency of veal consumption has a great impact. People often eating veal are supposed to have a higher WTP than others. The key role is plaid by opinion variables. Particularly, people feeling concerned with FAW are supposed to reveal higher WTP than others.

Conclusion

The main issue, that can be drawn here, is that french people seem to be very concerned with FAW. This survey aims at assessing the perceived benefits of farm animal welfare policies. French gouvernement and public decision makers have to take into account these results, whatever the joint products to FAW improvements are (a better quality of products or a moral satisfaction). Whereas the scenario used in this survey was not very detailed and did not explained the good to value, people accepted this scenario and provided a WTP to support an improvement of FAW.

Of course it can not be stated that people eliciting a high WTP in this survey would effectively buy at higher prices products from production systems respecting FAW. We don't know if respondents answered as citizens or as consumers. This question will have to be solved in following surveys, especially using focus groups, and hence a more detailed scenario. This could also permit to differentiate in the value consumers attribute to FAW, the use value and the non-use one.

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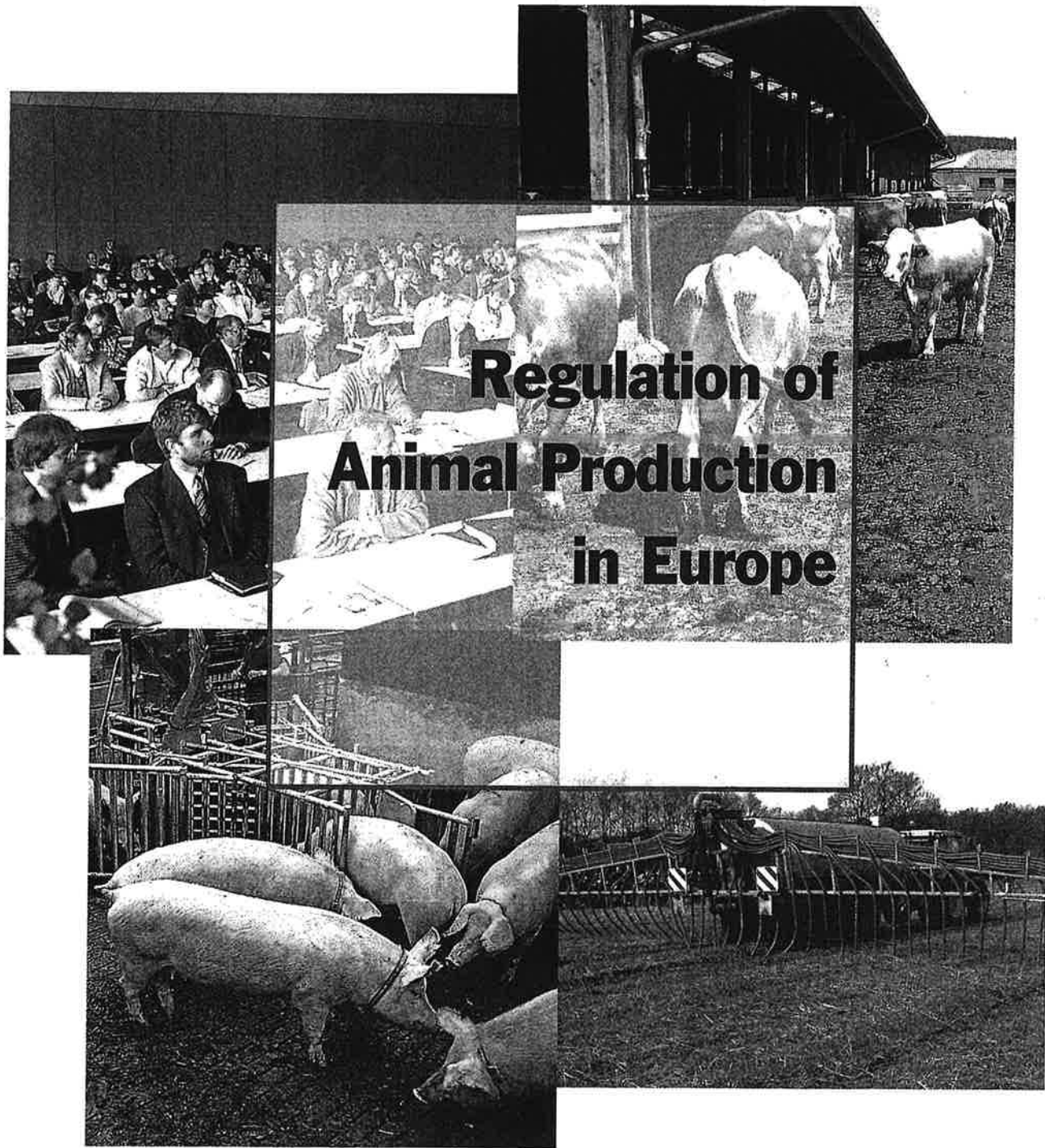
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Regulation of Animal Production in Europe

ANIMAL MANAGEMENT AND HEALTH [M] Paper M1.5

Direct payments to promote housing systems that are especially adapted to the behavioural needs of farm animals

W. Meier. Swiss Federal Research Station for Agricultural Economics and Engineering, FAT, 8356 Tänikon, Switzerland.

In Switzerland, an increasing number of consumers ask for animal products that are in accordance with high standards with regard to ecology and animal welfare. In 1993, Swiss government introduced direct payments to promote housing systems for farm animals that are especially adapted to their behavioural needs. Two programs were launched. The first program focuses on indoor housing systems and puts special emphasis on the quality of the lying area. The second program aims at promoting regular access to outside yards and pasture. Participation in these programs is voluntary.

In 1997, 27 and 6.3 million Euro, respectively, were invested in the two programs. A total of 17'000 farms housing 350'000 cattle equivalents participated in the programs. This accounts to 27% of the Swiss livestock population. The aim of the government is to have 50% of the livestock in these programs by 2005. According to calculations made by the Swiss Federal Research Station for Agricultural Economics and Engineering (FAT), this goal can be achieved.

Paper M1.6

French people's willingness to pay for farm animal welfare

K. Latouche. INRA, Unité d'Economie et Sociologie Rurales, Equipe Politique Environnementale et Risques, rue Adolphe Bobierre, CS 61103, 35011 Rennes cedex, France. Email: latouche@roazhon.inra.fr*

This paper deals with French's concerns about Farm Animal Welfare (FAW) and their Willingness To Pay (WTP) to support FAW improvement. To elicit respondents' WTP, Contingent Valuation Method (CVM) was used, whereas this method is still criticised. The WTP to support FAW improvement in different production systems is expressed as an increase of the market price of four different products: one kilo escalope of veal, one kilo white ham, a dozen eggs and one kilo beef (steak cut from the ribs). This survey, interviewing 1009 persons, shows that French people state a great concern about FAW. Some production systems have clearly been classified as unacceptable. French producers and public decision makers will have to take into account these results. They are in fact a good indicator of French public opinion and assess the perceived benefits of farm animal welfare policies. Four econometric models aiming at determining the main variables which explain the WTP elicited to support improvement of animal welfare are proposed. They show that people who feel concerned with farm animal welfare express a greater WTP than the others for veal welfare but express the same WTP for the welfare of hens, pigs and cattle as the others.