R. M. BENNETT, J. ANDERSON, and R. J. P. BLANEY

MORAL INTENSITY AND WILLINGNESS TO PAY CONCERNING FARM ANIMAL WELFARE ISSUES AND THE IMPLICATIONS FOR AGRICULTURAL POLICY

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ABSTRACT. An experimental survey was undertaken to explore the links between the characteristics of a moral issue, the degree of moral intensity/moral imperative associated with the issue (Jones, 1991), and people's stated willingness to pay (wtp) for policy to address the issue. Two farm animal welfare issues were chosen for comparison and the contingent valuation method was used to elicit people's wtp. The findings of the survey suggest that increases in moral characteristics do appear to result in an increase in moral intensity and the degree of moral imperative associated with an issue. Moreover, there was a positive link between moral intensity/moral imperative associated with an issue and people's stated wtp for policy to address the issue. The paper discusses the relevance of the findings of the survey in the context of the debate concerning the relationship between moral and economic values and the use of the contingent valuation method to estimate people's wtp of policy options with moral dimensions.

KEY WORDS: farm animal welfare, moral intensity, willingness to pay

INTRODUCTION

Ethical considerations concerning food have always been important, especially in terms of global food entitlements and nutrition (Sen, 1990). More recently, other ethical issues relating to the food chain have been of increasing concern including food safety, environmental degradation, biotechnology, and animal welfare (see Mepham, 1996 for a useful collection of essays on food ethics issues). The issue of farm animal welfare is increasingly being seen as important throughout the developed world, not least within the European Union (EU) and in the United Kingdom (UK) in particular.

Philosophers, theologians, and others have long debated the interrelationships between man and animals in terms of the position and role of animals in the world, the obligations of man towards them (if any) and the uses to which animals should be put. Much of the early writings on these matters took the ethical position that animals exist for the sake of man (e.g., Aristotle) and that man can, and should, use animals anyway

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that he pleases (e.g., Saint Thomas Aquinas). Indeed, some writers have gone as far as asserting that animals are nothing more than machines that lack speech and hence cannot reason (e.g., Rene Descartes). Regan and Singer (1989) provide a useful brief review of these early writings. The more-recent debate has centered largely around animal sentience and cognition, various forms of utilitarianism and contractualism and how they relate to the question of rights. In his well-known treatise, Jeremy Bentham (Bentham, 1789), the "father" of utilitarianism, contends that the key issue is that animals are capable of pleasure and pain. He writes that "animals stand degraded into the class of things" and states that "the day may come, when the rest of the animal kingdom may acquire those rights which never could have been withholden from them but by the act of tyranny" (Bentham, 1789, p. 283). These are recurring themes (in different forms) in the animal welfare debate up to the current time. For example, Regan (1984) states the case for animal rights.[1] Singer (1993, 1989) considers the moral standing of animals and presents his argument for an "equal consideration of interests," whilst Singer (1993) and Ryder (2000) write of "speciesism" and the unjust discrimination of animals. Other writers have argued strongly that animals do not have moral rights and lack moral standing (Carruthers, 1992; Frey, 1980), not least because they are not rational agents capable of agreeing to rules that govern behavior (i.e., they cannot enter into contracts with duties and responsibilities). However, even though animals may not be able to act as moral agents, this does not mean that we do not have responsibilities to animals nor that we should treat them as we please (Carruthers, 1992) and rights may still be assigned to them (Scanlon, 1982). Degrazia (1999) provides a useful up-to-date review of the animal ethics debate. He rejects the utility-versus-rights debate and notes that ethicists have recently taken a more pluralistic approach (some, such as Sapontzis, 1987, had already taken such an approach). A major issue in the animal welfare debate, and one of particular importance to utilitarian ethical arguments, is the extent to which different animal species can experience both pleasant and unpleasant states (Sandoe, 1996). Intuitively, many people may accept that many species of animals are indeed capable of experiencing these states to varying extents. Rollin (1992) presents the case that scientific evidence now supports this view (indeed, there is evidence that a number of species are capable of both anticipation and memory, thus supporting the argument concerning animals' ability to suffer). Fraser (2000) makes the case that both empirical knowledge from animal scientists and ethical reflection by philosophers are necessary

[1] More recently, Pluhar (1995) has also defended an animal rights view, albeit on a different basis than Regan's.

to adequately address issues concerning our treatment of animals. Rodd (1990) takes a pluralistic approach to animal ethics, which is informed by her knowledge of biological science.

Recognition of the utilitarian view of animal welfare has been highlighted by recent changes to EU legislation (agreed in 1997 as part of the Treaty of Amsterdam), in the form of revision to the Treaty of Rome (the original treaty establishing the European Community in 1957) by means of a Protocol on Animal Welfare, have stated the desire "to ensure improved protection and respect for the welfare of animals as sentient beings." Indeed, there has been much legislation within the EU over the last few years designed to achieve this goal (see Wilkins, 1997).

To determine whether such legislation is appropriate, it is desirable to know the value to society of the proposed legislation that would improve farm animal welfare, together with the costs that such legislation might impose (e.g., on livestock farmers). This cost-benefit analysis approach has been described as the "economic ethic" (Boulding, 1969). Certainly, it is a corner stone of economic analyses. The definition of benefits used within a cost-benefit framework is based on the premise that benefits represent the satisfaction of people's wants, which is assumed to give rise to utility, which is a measure of human well-being. It is usually then assumed that the greater the net utility associated with a course of action, the greater the benefit. This framework is thus wholly dependent on the utilitarian ethic. When using this framework to consider the desirability of measures to improve animal welfare, benefits and costs are considered solely from the perspective of human utility and well being and not (directly) animal utility or well being. McInerney (1993) states that "animal welfare is therefore just a subset of man's perception of his own welfare." Within this framework, animal welfare only matters because of human sensibilities toward animal welfare that affect human welfare (i.e., the perception that animals suffer may result in disutility for people). A more comprehensive discussion of these issues can be found in Bennett (1997). A money measure of the value of benefits to an individual person is their willingness to pay.

One way of gauging the value that people place on animal welfare legislation is to ask citizens their willingness to pay (wtp) to support the legislation by means of the contingent valuation (CV) method (Bennett, 1998). If the aim of farm animal welfare legislation is to address the moral concerns that people may have about human treatment of animals and the way that food is produced, then wtp measures of the benefits of legislation should also accurately reflect these moral concerns and the values that people place on policy measures designed to address them.

This paper reports the results from one of a series of experimental surveys to explore people's preferences, attitudes, and moral beliefs concerning the exploitation of animals for agricultural production and how these relate to people's wtp for different policy measures intended to improve animal welfare. The aim of the experimental survey reported here was to determine the extent to which the moral imperative that people believe to be associated with a farm animal welfare issue is reflected by the value, in terms of wtp, they place on a policy designed to address the issue.

EXPERIMENTAL SURVEY TO EXPLORE THE LINK BETWEEN MORAL INTENSITY AND PEOPLE'S WTP

Moral Intensity Framework

A moral issue is present where a person's actions, when freely performed, may harm or benefit others (Velasquez and Rostankowski, 1985). This is a broad definition that can include other animals as well as humans. Jones (1991) proposes an issue-contingent model of ethical decision making containing characteristics of the moral issue itself, which he collectively refers to as moral intensity. He argues that six characteristics of a moral issue – magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity, and concentration of effect – will be positively related to moral decision making and behavior (i.e., as independent variables within the model). Central to his issue-contingent model is the concept of moral intensity. Moral intensity is a construct that captures the extent of issue-related moral imperative in a situation and its component parts are those characteristics identified above (Jones, 1991). Moral intensity is likely to vary substantially from one issue to another. It will generally increase with an increase in any one or more of its components, components are expected to have interactive effects, and it is expected that threshold levels for components must be reached before moral intensity begins to vary significantly. Morris and McDonald (1995) found that moral intensity determines the moral imperative in a situation and that moral intensity variables, in aggregate, significantly affected an individual's moral judgments.

In this paper, the moral intensity framework developed by Jones (1991) is taken a stage further by relating moral intensity to wtp. This enables exploration of whether the wtp measure can help to gauge the extent to which farm animal welfare legislation or other agricultural policies can address the moral imperatives of people in society.

The research started with three main, related hypotheses.

Hypothesis 1 A farm animal welfare issue presented to people with increases in one or more of the moral intensity characteristics compared to another animal welfare issue will have a higher level of moral intensity and hence a perceived greater moral imperative associated with it.

Hypothesis 2 A farm animal welfare issue with a relatively high moral intensity will have a higher willingness to pay to address the issue than one with a lower level of moral intensity.

Hypothesis 3 Willingness to pay can be used as a proxy measure of the moral intensity, and hence degree of moral imperative, associated with an issue. The experimental survey outlined below was designed to explore these hypotheses.

Survey Design

Contingent valuation surveys are both costly and time consuming to undertake. Arrow et al. (1993), in their well-known expert review of contingent valuation methodology, note that experimental surveys using "convenience' samples" are acceptable when the aim is to test methodology. In order to explore the link between the level of moral intensity and wtp, an experimental survey of 120 undergraduate students was conducted during 1998. First, two focus groups (of 6–8 students in each group) were undertaken to help identify two food animal welfare issues that were likely to have different moral intensity elements associated with them. The two issues identified were the use of cages in egg production and the export of live farm animals, the latter being thought by focus group participants as particularly emotive.

A questionnaire was then carefully designed and pretested before being given to students to complete in class under supervision by the authors.[2] The questionnaires consisted of three main sections. The first section asked the students questions about their personal details (e.g., their age and sex) and then about their views on farm animal welfare (the extent to which they were concerned about the welfare of farm animals, their moral beliefs with regard to the use of farm animals, and their existing purchasing behavior with regard to animal products). The second section provided the students with information on a farm animal welfare issue: the export of live farm

[2] Students were following courses in the English Department and thus were considered unlikely to have any particular ethical biases as regards the use of animals. Students were handed the questionnaire and asked to complete it. No additional presentation of the issues involved was given.

animals in the European Union. The students were asked whether they would support legislation to ban the export and import of live animals for slaughter and their maximum wtp (in terms of an increase in their weekly food expenditure) to support the legislation. An open-ended wtp elicitation method was used but with a list of money amounts to help respondents in their deliberations (Mitchell and Carson, 1989).This was followed by "'debriefing" questions to explore the motives and reasoning behind responses. The students then had to complete six related attitudinal questions, which they were asked to score on a scale of 0–10 (with 10 being "very much like my way of thinking"). These attitudinal questions included questions about the extent to which respondents thought the production practices to be right or wrong, acceptable or unacceptable, the benefits to society of the practices (e.g., in terms of the provision of cheap food), and whether the practices were thought by society generally to be wrong or acceptable. Finally, the students were asked to state their reasoning behind the scores they gave. The third section followed the same format as the second section, but with cage egg production in the UK as the issue. The order of section two and three was reversed for half of the questionnaires and the two versions were distributed at random (to minimize order bias in the presentation of the two issues).

The live animal exports scenario had increases in a number of moral intensity characteristics compared to the egg scenario (see Appendix 1). The former included two statements about the condemnation of the practice by the European Commission and others, so increasing the "social consensus" element. It also referred to the larger number, and higher order of, species affected and that the effects included injuries, hunger/thirst, and death compared to the egg scenario, so increasing the "magnitude" element. The egg scenario considered legislation in 2010, whereas the live animal export scenario was more immediate, thus increasing the temporal immediacy element for the latter scenario. Similarly, the live export scenario may have had a greater degree of the "proximity" element, since higher order species are involved (including horses). Finally, the greater harm to animals in the live animal export scenario may have increased the "concentration of effect" element.

A specimen copy of the questionnaire is available from the authors on request.

FINDINGS

Summary of Responses

Analysis of the 119 completed questionnaires that were returned was undertaken using the Statistical Analysis System (SAS, 1989). Seventy-six percent of respondents stated that they were concerned that farm animals may be mistreated or suffer in the process of producing food. However, only 34% transferred this concern into action by avoiding certain food products on animal welfare grounds. The most common product to avoid was battery cage eggs (21% of the total sample). With regard to the morality of farm animal welfare, 83% agreed with the statement that "it is wrong to cause farm animals any pain, injury or stress." but this fell to 61% if that "pain, injury or stress" was for the purposes of producing food. It is worth noting that only 5% of the sample was vegetarian – thus, 56% of the sample (66 respondents) continued to consume animals even though they thought it was wrong to cause the animals they consumed any "pain, injury or stress."

Using the mean importance scores for the two issues, live animal export was seen by the sample to be a more important issue facing society than battery cages (with a mean score of 7.0 compared to 6.6, and with the difference between the two scores being statistically significant at less than the 10% level). However, support for the egg legislation, at 73%, was greater than that for the export legislation (at 58%), with 21% stating "no opinion" concerning the latter. In terms of mean scores to the attitude statements, there was greater agreement that battery cages are wrong, and that people in society generally think that battery cages are wrong. There was stronger agreement that there are few benefits to society from live exports than that there are few benefits to society from battery cages.

Table I shows the distribution of wtp amounts stated by respondents for the two scenarios. It can be seen there were zero bids (e.g., those that do not support the legislation) as well as a number of relatively large bids (£5/week or more). Mean and median wtp of the sample were estimated parametrically assuming a logistic distribution and not allowing for a negative wtp. Three observations (with large wtp bids of over £10) were treated as outliers and were excluded from the analysis.

The mean wtp for the egg legislation was £0.94p/week, and the mean wtp for the export legislation was £1.60p/week. Median wtp for the egg legislation was £0.90p/week, and the median wtp for the export legislation was £1.73p/week. The median was chosen as a measure of central tendency in addition to the mean as it is much less sensitive to distributional assumptions. The mean weekly food budget was £27.83p/week. Willing-

TABLE I

Percentage distribution of wtp amounts (£s per week as an increase in food expenditure) for cage egg and live animal export legislation.

Wtp amount (£s)	Cage egg legislation (%)	Live animal export legislation (%)
0	26	36
$> 0 < 0.50$	17	8
$0.50 < 1.00$	17	6
$1.00 < 1.50$	17	16
$1.50 < 3.00$	13	14
$3.00 < 5.00$	7	10
$5.00 < 10.00$	3	8
$10.00 +$	1	2

ness to pay for the battery cage legislation was correlated with purchasing behavior, and a belief that battery cages are wrong (both correlations were statistically significant at less than the 5% level). Willingness to pay for the live export legislation was correlated with the weekly food budget, a belief that live exports are wrong, and the extent to which respondents thought that the welfare of the export of live farm animals was a very important problem that society has to address (at less than the 5% level of statistical significance).

Attitudinal/behavioral Models of Wtp

After deleting observations with a non-response to any of the variables included in the models, attitudinal/behavioral models for both the battery cage and live export scenarios were estimated (Tables II and III respectively), using the same variable categories for both models. The model results show the relative influence on wtp of people's attitudes to the two issues. The variables included in the models were respondent's weekly expenditures on food (Food), a dummy variable for whether the respondent avoided purchasing food products because of animal welfare concerns (Purchase), and the degree to which the respondent agreed with the statement "apart from the welfare problems of battery cages/live exports there are large benefits to society from this system/practice" (Lrgben). Welfeth, Qualdiff, Budwelf, and Objpay are dummy variables denoting respondents statements of ethical concerns about the welfare of the animals involved, quality differences (e.g., non-cage eggs taste better), budgetary considerations (e.g., "I am happy to pay £x because it is only a small proportion of

TABLE II

An attitudinal/behavioral model assuming a logistic distribution for wtp: the battery cage scenario.

Variable	Estimate	Std Err	Pr > Chi
Intercept	89.97	25.13	0.0003
Welfeth	4.40	25.03	0.8605
Qualdiff	137.56	66.34	0.0381
Budwelf	49.05	29.84	0.1002
Objpay	–75.01	27.68	0.0067
Purchase	22.08	21.44	0.3031
Food	0.69	0.74	0.3525
Lrgben	–6.28	3.06	0.0406

TABLE III

An attitudinal/behavioral model assuming a logistic distribution for wtp: the live exports scenario.

Variable	Estimate	Std Err	Pr > Chi
Intercept	143.64	48.06	0.0028
Welfeth	90.76	53.78	0.0915
Qualdiff	69.92	64.09	0.2753
Budwelf	72.62	51.53	0.1588
Objpay	–49.45	67.40	0.4632
Purchase	71.47	36.81	0.0522
Food	0.66	1.29	0.6107
Lrgben	–12.23	6.13	0.0461

my food expenditure"), and objections to pay (e.g., "I don't think people should have to pay more to support the legislation") respectively, taken from the debriefing questions.

All of the variables within the models had signs (positive or negative) consistent with prior expectations. For the egg model, the perception that non-cage eggs were of higher quality than cage eggs (Qualdiff) had a relatively strong and statistically significant (at the 5% level) positive influence on wtp, whilst any objections to paying to support the legislation (Objpay) had a relatively strong negative influence. The perception that there were

large benefits to society from the cage egg system (Lrgben) also had a statistically significant (but smaller) negative influence. The influence of budgetary considerations (Budwelf) on wtp was positive and statistically significant at the 10% level.

For the live exports model, animal welfare ethical considerations (Welfeth) had a relatively strong influence on wtp (statistically significant at the 10% level). The variable Purchase, denoting whether people purchased (or avoided purchasing) particular food products on animal welfare grounds, was also a relatively strong positive influence on wtp (statistically significant at the 5% level). The variable Lrgben (the perception that the export of live animals had large benefits for society) had a relatively small, negative but statistically significant (at the 5% level) influence on wtp.

DISCUSSION

Two farm animal welfare issues were presented to respondents (cage egg production and live animal exports). The presentation of one of these issues (live animal exports) was designed to have a higher level of a number of "moral intensity characteristics," which Jones's issue-contingent model of ethical decision making predicts will result in the issue having a higher moral imperative associated with it (Jones, 1991). This was the basis of Hypothesis 1 presented at the beginning of the paper. The findings of the survey would appear to support the basic hypothesis. For example, respondents to the survey stated that the "live animal export" issue was a more important issue for society to address than the cage egg issue. However, the findings of the survey revealed little about which of the various moral intensity characteristics had most affect nor about the ways in which the characteristics may have interacted with one another. It would certainly be interesting for future research to explore these aspects.

Respondents stated a higher willingness to pay for the higher moral intensity "live animal export" issue than for the lower moral intensity cage egg issue. This would appear to support Hypothesis 2 presented at the beginning of the paper. Hypothesis 3 goes a stage further by stating that wtp can be used as a proxy measure of moral intensity, and hence degree of moral imperative, associated with an issue. The survey findings are more difficult to interpret as regards this hypothesis. The attitudinal models of the determinants of wtp showed that people's stated ethical concerns about animals' welfare were a strong and statistically significant (at the 10% level) determinant of the higher wtp for the higher moral intensity live animal export issue. This was not true of the lower moral

intensity, lower wtp cage egg issue. However, although mean and median wtp were both substantially higher to support legislation to address the "live animal export" issue than for the cage egg issue, the former had a lower percentage of people supporting the legislation to ban the export of live animals than to ban the use of cages and a higher percentage of "no opinion" and "no" responses. Thus, in terms of democracy, the cage egg legislation has a greater level of support, but, in terms of economics, legislation to ban live animal exports has a higher money value of benefits associated with it than the cage egg legislation. Clearly, the latter measure does not account for the costs associated with the two pieces of legislation. The lower support for the live animal export legislation could be due to people's uncertainty about the legislation (e.g., its practicality) or people could already be considering the costs associated with the legislation and deciding that these would be too high. There is evidence from the survey to suggest that the former explanation is most likely. For example, there was a relatively high proportion of respondents giving the equivalent of a "don't know" response to a number of the attitudinal statements about the export of live animals.

So how should we interpret the wtp values? First, it may be that a proportion of people feel very strongly about the live animal export issue and therefore state a high wtp to address it, whilst others are less concerned and state a relatively low, or zero, wtp. The distribution of people's wtp and of their attitudes toward the live export issue would support this. If the costs associated with the two pieces of proposed legislation were the same, this would suggest, from an economic cost-benefit perspective, that the live animal export legislation should have highest priority, since it results in the highest net benefit to society. However, from a democratic voting perspective, a higher proportion of people voted for the cage egg legislation and so, arguably, that should be preferred. It may be that a more pragmatic interpretation is required. Perhaps the higher wtp for the live animal export issue indeed indicates a higher moral imperative to address the issue, but that the relatively high proportions of people voting "no" or "no opinion" for the legislation means that they are unsure of the legislation itself and perhaps other ways of addressing the issue need to be considered.

In summary, there would appear to be some evidence to support Hypothesis 3 in that the degree of moral imperative associated with an issue does appear to be reflected (partly at least) in stated wtp. However, it is clear that peoples' moral attitudes and the decision making process are far more complex than Hypothesis 3 implies. Moreover, people's wtp reflects other aspects of a policy as well as the degree of moral intensity/moral imperative associated with it. Thus the wtp value may

be the result of a weighing up of a host of positive and negative factors considered by the respondents, as well as the moral dimension. However, if the degree of moral intensity/moral imperative associated with an issue is reflected in wtp to address the issue, then perhaps the wtp measure can be used to supply appropriate quantitative information to policy makers that can legitimately be used as part of an assessment of policy options.

Surveys (or opinion polls) that include elicitation of people's wtp to address an issue provide some more formal means of public consultation on agricultural/food policies, in addition to other methods. Durant (1998) argues the need for public consultation as a means of achieving socially-sustainable policies regarding food safety and other food and agricultural ethical issues, such as the animal welfare implications of food production.

Although a "convenience sample" of students was used for the experiment, such samples are often used to explore or test contingent valuation methodology (e.g., see Bennett and Larson, 1996) and, as noted earlier, are considered acceptable when used for this purpose (Arrow et al., 1993). Although the student group is not representative of the general population, there is no reason to believe that a link between moral intensity and wtp in a student population would not also be present in the population more generally. Indeed, it could be argued that, because students have low incomes, their wtp is relatively constrained compared to the population generally, and, therefore, they may actually exhibit a weaker link between moral intensity and wtp than the general population.

It must be noted that the contingent valuation method, although used as a valuation technique for a host of non-market goods over the last 30 years or more (see Carson et al., 1995 for a bibliography of over 2,000 studies), remains somewhat contentious. A key criticism of the wtp measure from contingent valuation surveys is whether it is a true measure of value. Since the technique involves hypothetical markets, how do we know that people's stated wtp is what they would actually be willing to pay? Carson et al. (2000) provide a review of the current debate concerning the CV method including its limitations and potential biases. One of these biases is referred to as the "purchase of moral satisfaction" (Andreoni, 1990; Kahneman and Knetsch, 1992). This bias is where people state a higher wtp than their true value for the good in question because at least part of their stated wtp is really for the "warm glow" that they get for paying money to help a good cause (i.e., they are paying to satisfy a need to act in a demonstratively "moral" way). This bias highlights the complex relationship between moral behavior and wtp.

More fundamentally, we do not attach a money amount to everything that we value. Perhaps some things cannot/should not be valued in money

terms. To many people it may seem abhorrent to try to place a money value on things that they see as primarily moral issues (and, for example, these people may refuse to give a wtp value in a survey such as the one reported here). Alternatively, we make judgments about many things that involve a complex host of considerations including some economic and some moral. The use of farm animals is an example. The decision to use animals to produce meat, milk etc., which may necessarily compromise the animals' welfare, shows that we do not just make decisions on moral grounds but may weigh up moral benefits/costs against economic ones (i.e., the benefit we get from consumption of animal products). It is not within the scope of this paper to provide a review of the debate concerning the relationship between moral and economic values but clearly this debate is of importance to the use of the wtp measure to value policy options that have moral dimensions (see Milgrom, 1993; Spash 2000).

CONCLUSIONS

The exploratory study presented in this paper has shown that increases in the various characteristics of a moral (animal welfare) issue do result in an increase in the moral intensity associated with the issue and the moral imperative to address it, as put forward by Jones (1991). The research was not able to identify the precise links between individual characteristics and moral intensity but this would be an interesting area for future research. The study also found a positive link between moral intensity and people's willingness to pay to address an issue. Although people's willingness to pay does seem to reflect (in part, at least) the degree of moral imperative associated with an issue, it is clear that peoples stated willingness to pay is likely to be the result of a weighing up of a host of factors associated with the policy. The role that the moral dimension has in this decision making process is a complex one that the research reported here does not explain. However, if the wtp measure does reflect the degree of moral imperative associated with an issue, as well as other aspects of policy, then perhaps it has some credibility as a source of useful information for assessment of policy options that address issues with moral dimensions.

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APPENDIX 1

Descriptions of the Two Animal Welfare Issues Contained Within the Questionnaires

The Export of Live Animals to the European Union

Every year approximately 14 million cattle and calves, pigs, horses, mules, sheep, and goats are transported between Member States of the European Union. In addition, around 1 million animals are exported from the EU for slaughter each year, particularly to the Middle East and some 2.3 million animals are imported. The European Parliament has expressed its considerable concern about the way in which animals intended for meat are transported. Inspections by the European Commission's veterinary inspection service have revealed the "atrocious conditions" in which many farm animals are transported. Animals being transported suffer from various injuries, exhaustion, too little ventilation, hunger, thirst, and some die.

The European Parliament considers long distance transport of live animals for slaughter unnecessary given that chilled or frozen meat can be rapidly and easily transported. Transport of horses has been of particular concern and 3.25 million people in 28 different countries have signed a petition calling for a ban on this practice. The reason for the farm animals being transported live is that continental consumers are demanding locally slaughtered meat and are willing to pay a price premium for it. The consequences of a ban on the export of live farm animals would be reduced profitability for farmers and, as a direct consequence of this, food prices would increase.

Cage Egg Production in the UK

The majority of the 32 million hens in the UK are housed indoors in wire-meshed cages. Cage sizes vary but usually hold up to six hens with up to six levels of cages in a building. Because of the degree of confinement, hens commonly have difficulty in moving, for example, to stretch their wings and cannot perform a number of natural behavior patterns such as making a nest, sand bathing, sitting on perches, etc. Hens remain in these cages for around 12 months before they are slaughtered. Alternative systems to the battery cage system exist, such as free-range or perchery systems. However, the costs of the alternative systems are higher than those of the battery cage system.

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Department of Agricultural and Food Economics University of Reading
PO Box 237
Reading RG6 6AR, UK
E-mail: r.m.bennett@reading.ac.uk