

Extended Abstract

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Paper/Poster Title	UK consumers' WTP for Scottish produce and the role that sustainability-related claims can play in promoting its demand
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Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.

Abstract	<i>200 words max</i>
<p>This study aims to assess pork consumers' willingness to pay for the use of the label "Specially Selected Pork" on Scottish pork sold in Scotland and the rest of the UK. It also investigated whether and how the demand for Scottish pork can benefit from the individual and joint use of the labels "Scottish", "British", "Red Tractor", "RSPCA Assured", "Organic", "Low GHGe", "Moderate GHGe", "Low Fat", "Moderate Fat". The data was collected using a choice experiment-based survey completed by 2000 UK pork consumers. Consumers in Scotland were found to be willing to pay a higher price premium for the label "Specially Selected pork" than pork consumers in the rest of the UK. In Scotland, pork consumers' price premium for the label "Specially Selected pork" was found to be comparable to their price premium for the label "Red Tractor" (£2.06) (£2.07/500g) and significantly higher than their price premium for the label RSPCA Assured (£1.66). The results also suggested that the simultaneous use of the label "Specially Selected pork" and, at least, one of the other pork labels "Scottish/British", "Organic", "Low/moderate GHGe", and "Low/Moderate Fat" could significantly increase the desirability of Scottish pork in Scotland and the rest of the UK.</p>	
Keywords	Value-added, Animal welfare, Origin, Organic, Greenhouse gas emissions, Consumer, Willingness to pay
JEL Code	C35, C83, D12, Q13, Q18
Introduction	<i>100 – 250 words</i>
<p>Producers' participation in the Scottish pork sector has decreased in recent years, due to financial pressures on sale and export prices and increasing input costs, notably for ingredients, energy, and wages. One way to address this could be to increase the value added to Scottish pork. However, that is only viable if there is a retail market for value-added Scottish pork products. This research, which is part of a research project on costs and opportunities for Scottish products with higher value status, aimed to assist the sector by reviewing the costs and opportunities for higher-value Scottish pork products. This study aims to fill in the gap in the literature on demand for Scottish produce by (1) assessing UK consumers' willingness to pay (WTP) for value-added Scottish pork ("Specially Selected Pork") and how it compares to their WTP for other desirable pork attributes (i.e., animal welfare, greenhouse gas emissions, fat content, and origin), (2) investigating whether and how the demand for Scottish pork can benefit from the individual and joint use of the labels "Scottish", "British", "Red Tractor", "RSPCA Assured", "Organic", "Low GHGe", "Moderate GHGe", "Low Fat", and</p>	

“Moderate Fat”, (3) investigating how the results vary across different group of consumers (e.g., segmented based on their purchasing habit, type of information they received).

Methodology

100 – 250 words

The data were collected using a web-based choice experiment. Five attributes were considered to describe the alternatives of fresh pork: assurance scheme, type of production, level of GHGe, level of fat content, and price. Each attribute was described in terms of at least two levels. The attribute levels are described in Figure 1. In the choice experiment, respondents were successively shown nine choice sets. Each choice set comprises two pork alternatives and an opt-out alternative. Each pork alternative was described in terms of the five attributes. An example of one of the choice sets used in the pork study is displayed in Figure 2.

A questionnaire followed the choice task. The questionnaire was used to collect information on respondents' sociodemographic characteristics and their purchasing habits and attitudes toward several food attributes (e.g., assurance schemes, environmental sustainability, origin, price, and pork labelling). The sample used in this study is representative of the Scottish and the UK population in terms of age, gender, employment status, and education level.

The data were analysed using the mixed logit model (main and two-way interaction effects). Nine mixed logit models were estimated: One model considering the whole sample, and a model for each one of the nine segments of respondents (“Habit/repeated buying”, “Variety-seeking buying”, “Impulsive buying”, “Intrinsic attributes”, “Extrinsic attribute”, “Price-minded”, “Scotland”, and “Rest of the UK”).

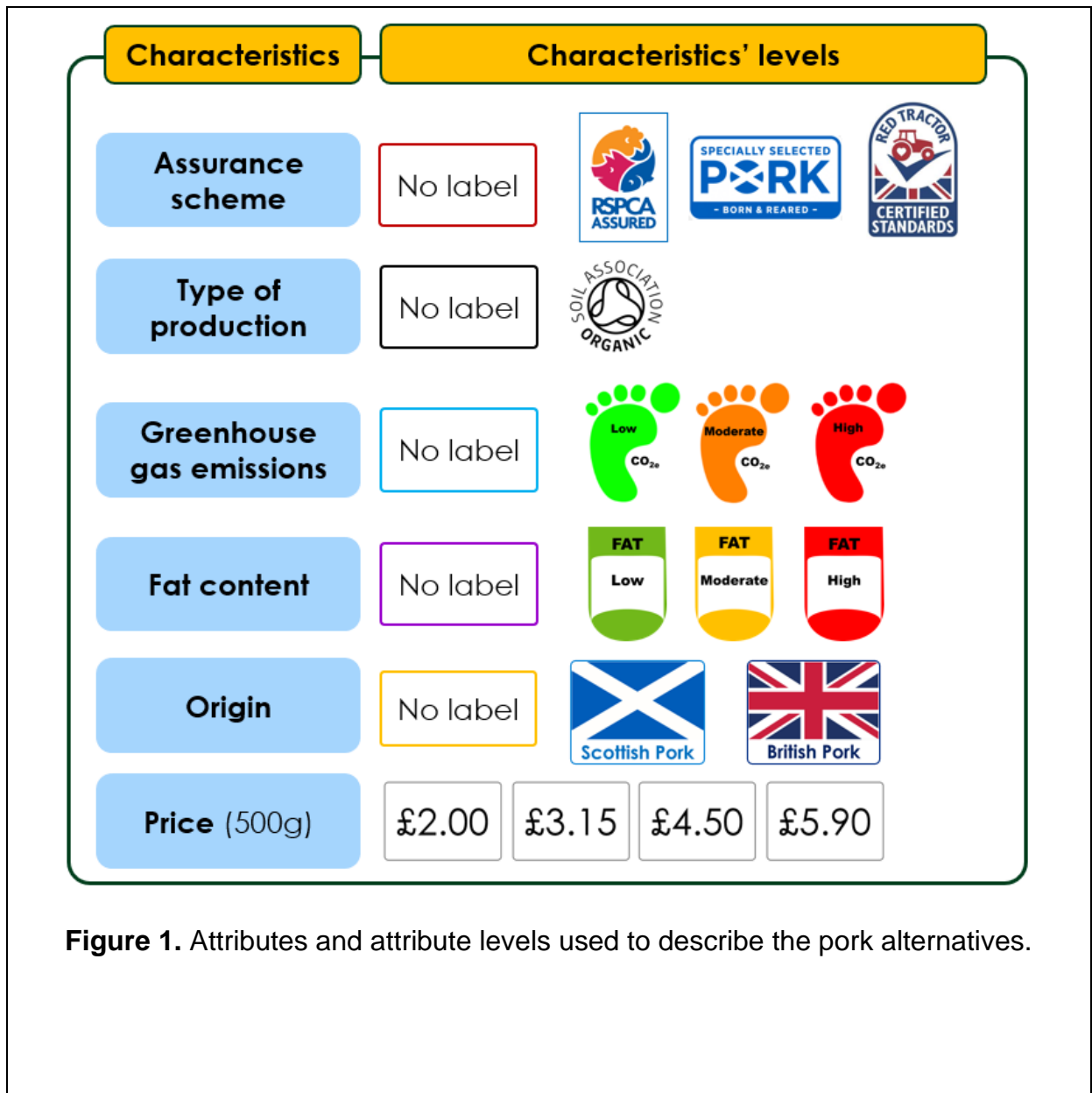


Figure 1. Attributes and attribute levels used to describe the pork alternatives.

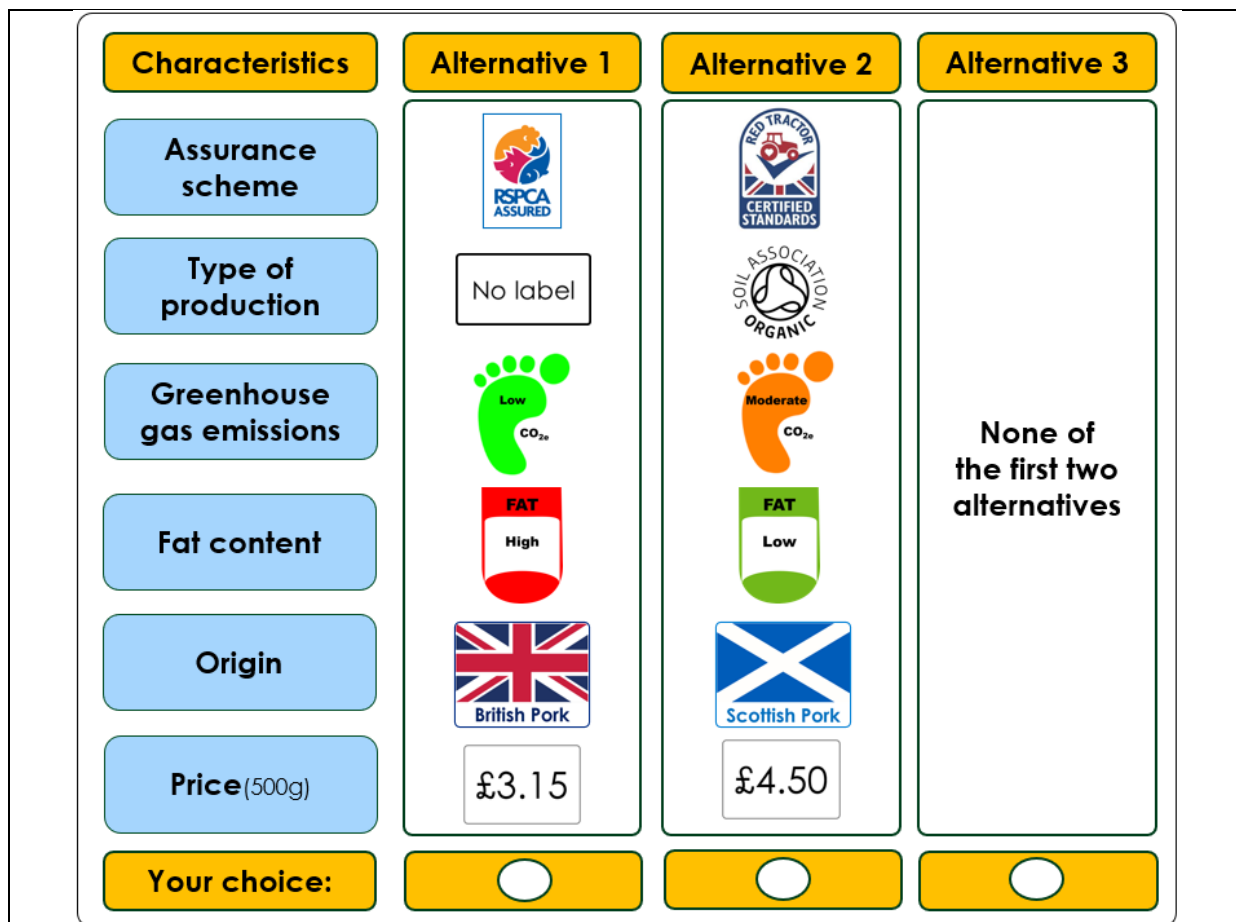


Figure 2. Example of a choice set used in the choice experiment.

Results

100 – 250 words

- Consumers' WTP for the labels considered in this study are summarised in Figures 3 and 4. Note that all the values displayed in Figures 3 and 4 are consumers' price premiums for the label of interest relative to a product that does not carry those labels.
- Consumers in Scotland were found to be willing to pay a price premium of £2.06 for 500g of fresh pork labelled as "Specially Selected Pork" relative to pork that does not carry any assurance scheme-related label. In the rest of the UK, consumers are also willing to pay a premium for the Scottish pork that carries the label "Specially Selected Pork". However, their premium is significantly lower (£1.39).
- In Scotland, "Specially Selected Pork" is the most valued assurance scheme-related label. In the rest of the UK, "Red Tractor" (£1.84) is the most valued assurance scheme-related label, followed by "RSPCA Assured" (£1.43) and "Specially Selected Pork" (£1.39).

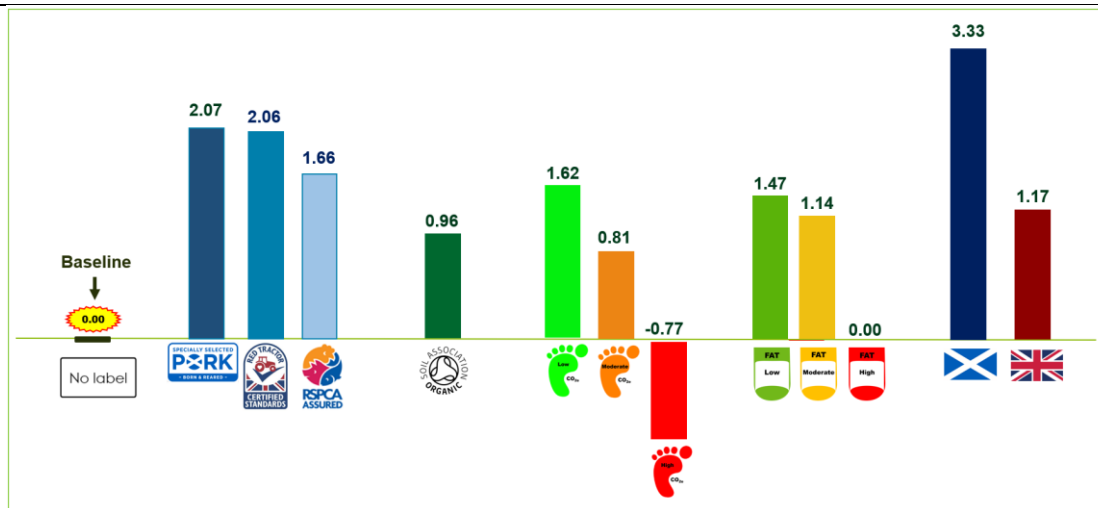


Figure 3. Consumers' price premium (in £ per 500g of fresh pork steaks) for the labels considered in the study (Scotland)

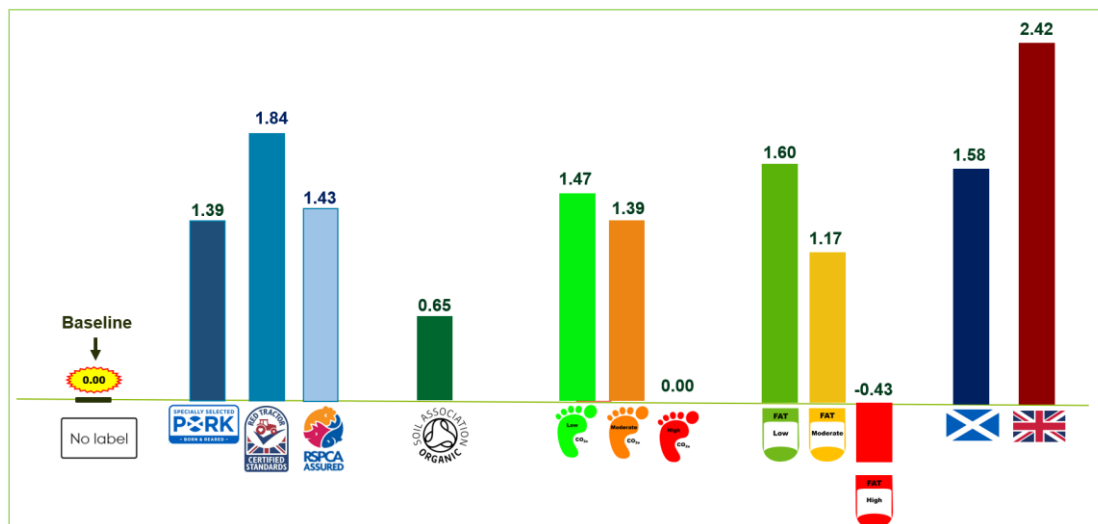


Figure 4. Consumers' price premium (in £ per 500g of fresh pork steaks) for the labels considered in the study (Rest of the UK)

- Origin was found to be the most valued pork attribute by consumers in both sub-samples (i.e., Scotland, rest of the UK). In Scotland, consumers are willing to pay a premium of £3.33 and £1.17 for pork labelled as “Scottish” and “British”, respectively. Pork consumers in the rest of the UK were found to be willing to pay a higher premium for pork labelled as “British” (£2.42) than pork labelled as Scottish (£1.58).
- The results also showed that pork consumers in Scotland and the rest of the UK are willing to pay a premium for more sustainable pork, being significantly higher for pork labelled as “Low GHGe” or “Moderate GHGe” (only in the rest of the UK) than organic pork.
- Prok’s fat content is another highly valued attribute by UK consumers. In Scotland, sampled consumers were found to be willing to pay significantly higher premiums for pork labelled as “Low Fat” (£1.47) and “moderate Fat” (£1.14) than for pork that

does not carry any of these two labels. In the rest of the UK, consumers' price premiums for "Low Fat" (£1.60) and "moderate Fat" (£1.17) pork were found to be slightly higher than those of sampled pork consumers from Scotland.

- "Price-minded consumers" were found to be willing to pay significantly lower price premiums for all the labels than consumers who consider more intrinsic and extrinsic attributes when buying pork (e.g., Specially Selected Pork: "Extrinsic-minded" £6.13, "Intrinsic-minded" £1.84, and "Price-minded" £0.52). The type of purchasing habit was also found to influence consumers' WTP.

Discussion and Conclusion

100 – 250 words

- The use of the label "Specially Selected Pork" can boost the demand for Scottish pork in Scotland and the rest of the UK. The higher price premium for "Specially Selected Pork" in Scotland is likely due to the higher familiarity of Scottish consumers with the label. Promoting the brand "Specially Selected Pork" in the rest of the UK can significantly increase its demand.
- The brand "Specially Selected Pork" is competing in the eyes of consumers with other assurance scheme-related labels: "Red Tractor" and "RSPCA Assured", especially in the rest of the UK where "Specially Selected Pork" is the least value assurance scheme-related label. This should be considered when pricing "Specially Selected Pork" in Scottish and non-Scottish UK markets.
- The results also suggest that the "Specially Selected Pork" should be labelled as "Scottish" when sold in Scotland and as "British" when sold elsewhere in the UK.
- The demand for "Specially Selected Pork" can also benefit from using environmental and health-related labels, which were found to be highly valued by UK consumers. The results suggest that the simultaneous use of the label "Specially Selected pork Pork " and at least one of the colour-coded pork labels "Low GHGe", "Moderate GHGe", "Low Fat", and "Moderate Fat" can significantly increase the desirability of Scottish pork in the eyes of Scottish and non-Scottish UK consumers. Of particular interest are the colour-coded labels "Moderate GHGe" and "Moderate Fat", which are highly valued by pork consumers and are technically easier to produce.
- The heterogeneity of consumers' WTP should be taken into consideration when pricing and promoting the "Specially Selected Pork"