

MEAT PRODUCED UNDER AGRI-ENVIRONMENTAL SCHEMES. PROBLEMS OF FULFILL CONSUMER EXPECTATIONS

Gerold Rahmann

Dept. of International Animal Husbandry, University of Kassel,
Steinstrasse 19, 37213 Witzenhausen, Germany, Tel. +49 5542 98 1203, FAX +49 5542 98 1250, eMail:
rahmann@wiz.uni-kassel.de

Summary

Special target groups pay attention to meat which is produced in an environmentally friendly manner, like biotope grazing, done under agri-environmental schemes. The marketing of these products needs special emphasis to obtain a comparable income to ordinary farming. In the marketing strategy, "added values" are used to attract these consumers and show differences to intensively fattened or imported meat.

The fulfilment of such tourist perceptions and expectations can be difficult in the production. Although "added values" would be paid, the market potential can not be exploited. The production pattern restricts the quantity and quality of meat produced under agri-environmental schemes. When the consumers expectations and the product quality are compatible, the market channels determine the action of consumers to purchase special dishes. The purchase must be as easy as usual. The preparation of special meat like lamb or kid meat is mostly not known and common.

All these limitations in the marketing of meat produced under agri-environmental schemes shows the limited market potential. Nevertheless, the "Rhön lamb" shows that niche markets can be created, efforts in the marketing of "speciality" products to special target groups is even profitable for producer and the intermediate trade. Cooperation between the producers and intermediate trade is recommendable for successful marketing of "speciality" products. Promotion must create a positive perception of eating meat with "added values", this is only possible when the producer and the intermediate trade are themselves convinced in the quality of the product.

Introduction

In Germany, sheep, cattle and goats are used for biotope conservation under agri-environmental schemes. The production yield of the animals is low and the meat quality worse compared to that of conventional fattening. On the market it competes with meat from intensive farming. The marketing strategy and the promotion of meat produced under agri-environmental schemes must be different to marketing of ordinary meat. In the EQUJFA project, taking consumption behaviour into consideration the possibilities and limitations of meat produced under agri-environmental schemes to fulfil consumer expectations are examined. For the analysis, biotope grazing measures by animals have been chosen which use "added values" for their marketing strategy. "Added values" are biotope conservation, rare breeds, traditional farming, organic farming. Therefore the markets of lamb from Rhön sheep ("Rhön lamb"), beef from Fleckvieh steers sold under the label of "Rhöner Weideochsen" and kid meat are taken for the evaluation. The goal of this work was, to analyse the target groups of consumers for the successful marketing of products from agri-environmental schemes with "added values" and to calculate the market potential for these products in the Biosphere Reserve Rhön.

Material and methods

Consumer expectations and their consumption behaviour are evaluated through an survey at chosen locations in and close to the Biosphere Reserve Rhön. 480 people were interviewed using a common formal questionnaire in November and December 1997. Problems in distribution and the marketing of meat produced under agri-environmental schemes was analysed by Product Stream Evaluations (PSE) of the chosen products: lamb from Rhön sheep, beef from "Rhöner Weideochsen" and kid

meat. Farmers and intermediate trader's problems in fulfilling consumer expectations were evaluated.

Results

Consumption behaviour and consumer expectations

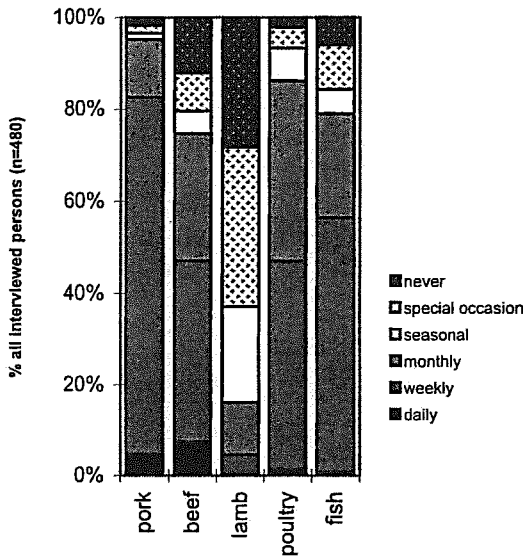
Pork is the most popular meat consumed in Germany followed by beef and poultry. Lamb and kid meat have a low preference and are not consumed very often (1,2% of the total meat). In the consumer survey, most people said that they consume pork weekly and beef monthly. Lamb and kid meat is not consumed regularly but on special occasions like holidays, religious festivals (e.g. Easter) or family celebrations, it is seen as a special dish, as all meat from the agri-environmental schemes. Overall kid meat is the less preferred than lamb, nevertheless at Easter there is slightly more demand. About 35% of the interviewed people mentioned that they have never eaten and would never eat kid meat. If it is eaten, it is recognized as special dish.

Table 1: Meat consumption pattern in Germany (in kg/capita and year)

| | meat total | pork | beef | poultry | lamb | kid |
|------|------------|------|------|---------|------|-------|
| 1992 | 93.7 | 54.5 | 19.2 | 12.5 | 0.7 | <0.01 |
| 1993 | 95.3 | 56.1 | 19.7 | 12.4 | 0.7 | <0.01 |
| 1994 | 93.0 | 55.5 | 17.5 | 12.8 | 0.7 | <0.01 |
| 1995 | 91.7 | 54.9 | 16.5 | 13.3 | 0.7 | <0.01 |
| 1996 | 90.5 | 54.0 | 13.0 | 13.9 | 0.8 | <0.01 |
| 1997 | 89.5 | 54.0 | 11.5 | 14.5 | 1.0 | <0.01 |

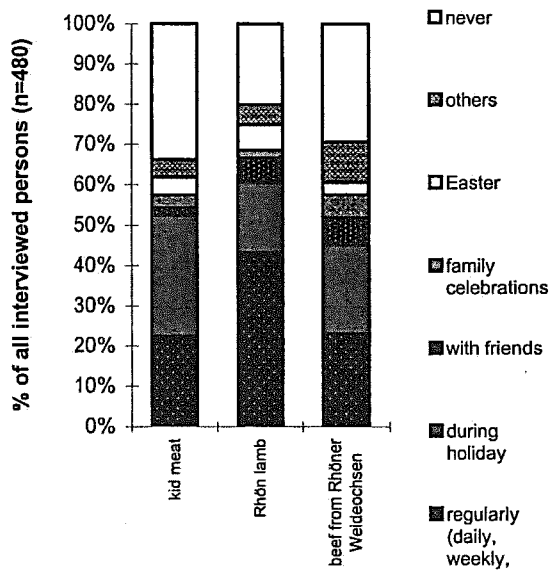
Source: compiled by the statistical figure of ZMP, annual editions from 1993 to 1998, Agricultural report of the Federal Government, 1998

Figure 1: Average consumption pattern for meat of different animals



Socio-economic differences are measurable for special dishes. For example, prosperous and/or urban people consume special dishes more often than less prosperous and/or people from rural areas. Men prefer beef more than women, women lamb more than men. West-Germans like lamb more than East-Germans. When special dishes are not consumed, it is because of the high price. Tourists are less reluctant than indigenous people. Because it is seen as more typical and special, lamb from Rhön sheep is preferred more by tourists than beef from "Rhöner Weideochsen". Beef from "Rhöner Weideochsen" is preferred more in the adjacent cities of the Biosphere Reserve Rhön. It is perceived as a healthy product of an environmentally and animal-friendly production system.

Figure 2: Occasions when meat produced under agri-environmental schemes is consumed



Tourists are the most important target group for marketing and promotion of meat from agri-environmental schemes in the Biosphere Reserve Rhön (Rahmann, 1997). The "added values" of animal systems on agri-environmental schemes for biotope conservation are very important for many tourists. The difference between the socio-economic groups are minor. It does not matter, if man or woman, town or rural people, West- or East-German, prosperous or less prosperous people, all have high expectations on product and production quality. In the following order, no use of hormones and antibiotics, fresh and not frozen, tenderness, less fat and low cholesterol and good colour are expected of high quality meat. Following on from these core values "added values" are important for the consumers (in given order): animal welfare, environmentally-friendly production, regional distinctiveness, biotope conservation, rare breeds and at least tradition.

Problems to fulfil consumer expectations with meat produced under agri-environmental schemes "Rhön lamb"

In Germany, sheep grazing is important for biotope conservation. Under agri-environmental schemes shepherds are often forced to keep rare breeds. From birth in January/February till slaughtering in autumn the lambs remain with the mother. Because no concentrates are fed, the daily weight gain of the lambs is low. Compared to ordinary sheep keeping, only 60% to 80% of weight gain is achieved, when biotope grazing is carried out (approximately 250 to 300 g/day, Rahmann, 1998). Particularly the abattoirs want a lamb of about 45 kg, but during biotope grazing even high performance breeds reach only 35 kg by autumn. Rare breeds have even less growth performance than modern breeds and are assessed in EUROP-classification even lower (e.g. R to O). Shepherds complain about this, because 0,06 to 0,21 DM per lamb and grazing day is lost due to sub-optimal growth rates. This depends on breed, marketing pattern and season.

In the marketing cooperative "From the Rhön - For the Rhön" the consumer perceptions of the Rhön sheep are used for marketing lamb with "added values". Because German consumers like lamb as a special dish for special occasions, market channels for home consumption like supermarkets and butchers are not suitable for marketing "Rhön lamb" with "added values". However, tourists pay the most attention to "added values" for products with regional distinctiveness and are even willing to pay for "added values" (Rahmann, 1997). Therefore, restaurants are the best marketing channel for successful marketing of lamb. In cooperation between restaurants and shepherds, the "added values" rare and indigenous breed (Rhön sheep), traditional husbandry (herding), landscape protection (biotope grazing) and animal welfare, are used for marketing. With this promotion, the "Rhön lamb" has become - with increasing attention - a special dish for tourists in the Biosphere Reserve Rhön. Despite the fact, it is about double the price compared to other lamb, the demand of 2.000 Rhön lambs per year cannot be fulfilled

by the supply of 600 Rhön lambs p.a.¹ The shepherds sell self-slaughtered "Rhön lamb" to restaurants, which serve them to final consumers. A own company for the slaughtering and marketing of the "Rhön lamb" was established by the farmers, to gain the intermediate trade surplus (funded by LEADER II).

Beef of "Rhöner Weideochsen"

Cattle grazing for biotope conservation is done with suckler cows, fattening bulls and young stock of dairy cow herds. Dairy cows are not usable for agri-environmental schemes. Calves from suckler cows are slaughtered at an age of 10 months and is marketed as "baby beef", or are fattened like beef cattle to an age of 18 to 20 months. Young stock at an age of one and two years are kept for replacement of cows on dairy farms. For extensive grazing systems, low and medium growing breeds are preferable, because they grow well even without concentrate feeds and/or they can be long time of the year outside. Particularly the hardy breeds like Galloway and Highland are good for extensive and low-input suckler cow keeping. Nevertheless, with 600 to 800 g the daily weight gain of these British hardy cattle is low. Since the BSE-crisis, the consumer perception of "healthy meat" from these breeds is lost and with that the possibility for using it as an "added value". The consumption of beef has decreased in Germany due to this disease. After the BSE crisis, non-British or indigenous breeds are preferably used for extensive grazing. In the Rhön these are the double purpose (milk and beef) Fleckvieh cattle. To prevent lower EUROP-classification when extensive grazing is done the bulls are castrated. The castration improves the EUROP classification compared to un-castrated bulls (e.g. from R₃ to U₂). While biotope grazing, the disadvantage of oxen in higher fodder needs per kg weight gain is less important than for intensive fattening systems, because roughage is cheap and does not determine the production costs. The marbling of the beef of steers under extensive grazing is better than un-castrated bulls.

In Germany, origin and transparency in production has become an important aspect in the marketing of beef. This is fulfilled in the "Rhöner Weideochsen" project. Additionally, environmentally-friendly production (organic farming on 2092/91 and extensive grazing under 2078/92), animal welfare (out-door keeping), regional distinctiveness (Rhön) and tradition are used as "added values" in marketing. Because beef is regularly consumed at home, marketing channels as in butcher shops are used for promoting and distribution, just as restaurants in and out of the Rhön. Home consumption has the highest importance as a marketing channel, restaurants are second. For home consumption sausages are favoured, in restaurants special dishes of beef. These products are available throughout the year, seasonality is not viewed as a predominant factor affecting consumption. Because it is sold for home consumption, the touristic season is less important for marketing compared to lamb. From the Biosphere Reserve Rhön it can be successfully sold with the use of the image of the Rhön as an "added value".

Kid meat

Usually, kid meat is a complementary product of goat milk production. When goats are used for biotope grazing, it becomes the main product, because milking is not appropriate due to high labour input and low milk yield of the animals. For biotope grazing, fences are used for keeping small flocks of goats and the production pattern is comparable to sheep keeping. Their browsing behaviour is used for shrub clearance. The kids are with the mother but are slaughtered at a young age of two to six months, because a carcass weights about 5 to 15 kg is preferred. Therefore, low weight gain while biotope grazing is less of a problem than for lamb production. Mother goats with a medium milk yield are preferable for biotope grazing and early weaning of kids to avoid udder problems.

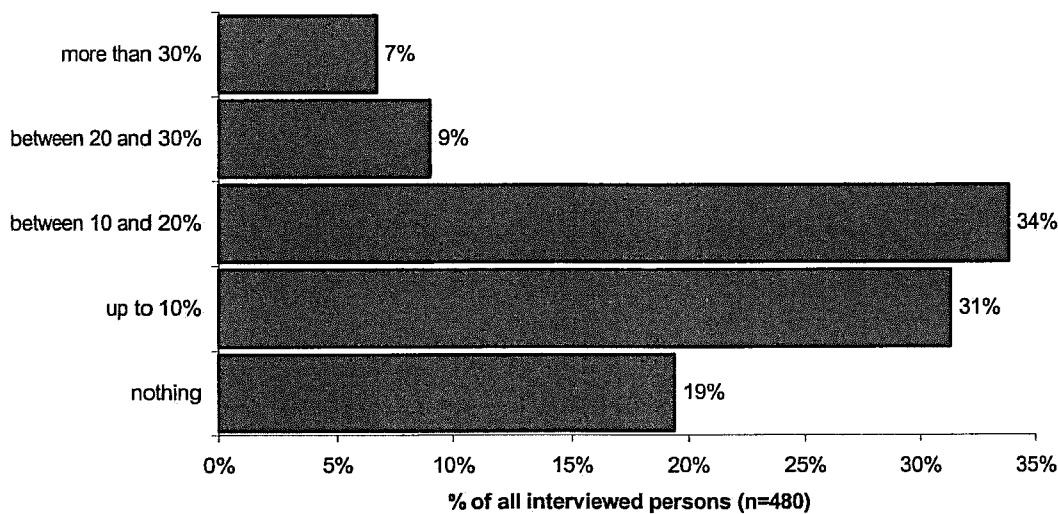
Kid meat has a low preference for German consumers. Therefore, kid meat is a product for occasional marketing. No regular market exists. The informal market channels are difficult for marketing. Many consumers have no access to kid meat. Moslems are the major consumer group but they do not pay attention to "added values". There is only very little advertising and promoting of kid meat in Germany. Just a few butcher shops and restaurants - mainly located in big cities with Moslem population - offer kid meat. The production level in Germany is very low (estimated 5.000 tons), about 50% of self-sufficiency. The imported kid meat comes from Greece, Spain, Italy and France. In the Biosphere Reserve Rhön there are just 500 mother goats. They can deliver approximately three tons of kid meat per year. A small consumer group is already paying good prices for kid meat. About 16 DM per kg carcass is possible but rarely more than 10 kg is bought. With "added values" only slightly higher price can be achieved. The attraction of new consumer groups has to be the target of extending the marketing of kid meat.

Market potential for meat produced under agri-environmental schemes

The expectations, the consumption behaviour and payment for "added values" is restricted by marketing channels. These marketing channels are less developed. Trust and knowledge is missing for consumers. Only restaurants and special shops are appreciated for special products, like meat produced under agri-environmental schemes. There they are willing to pay more for "added values" but it is only done occasionally. A successful marketing of meat with "added values" must done for special target groups as a niche market, mass consumption is not possible. Vertical cooperations between farmers and intermediate trade is valuable for successful marketing with "added values". Transparency of production pattern and connection between producer and consumer are most important for fulfilment of consumers expectations and exploiting the willingness of additional payment for "added values".

¹ : All together about 9.000 lambs are produced in the Rhön.

Figure 3: How much more would you pay for meat produced under an agri-environmental scheme?



Even when there is a link between producer and consumer and all expectations are fulfilled, there are limits in market potential. For the farmers as producers of meat under agri-environmental schemes the limits are the production capacity, due to the numbers of animals (e.g. rare breeds) and restricted production pattern (stock density) and for the consumer the consumption capacity as a function of the individual behaviour.

"Rhön lamb" is mainly marketed to tourists visiting the Biosphere Reserve Rhön. It is mostly offered in restaurants with high tourist interest. This is mainly in the summer season. The image as a special dish is specific for "Rhön lamb". Other meat products using the Biosphere Reserve Rhön for labeling have difficulty in competing with "Rhön lamb", because they are not perceived as special enough. Beef of the "Rhöner Weideochsen" has no cultural obstacles and consumption rejections in the consumer's mind. The marketing can be done in butcher's shops, for home consumption (sausages) and from of the Biosphere Reserve Rhön, in adjacent cities (in restaurants). The image of the Biosphere Reserve Rhön is used as a label. Competition for "Rhön lamb" is less.

The use of "added values" from the Biosphere Reserve Rhön faces the problem of "the competition of the regions". For example, besides "Rhöner Weideochsen", beef with regional distinctiveness from Vogelsberg, Knüll and Spessart is promoted and marketed in the city of Fulda.

There is no market for kid meat as for lamb or beef. Only a few consumers like kid meat and butcher shops and restaurants reject the marketing and promotion of kid meat. Kid meat is mostly on-farm sold to final consumers, as there is only a small market. Like the promotion of lamb from the Rhön sheep, "added values" could be used to have success in marketing. The marketing of meat with "added values" has not only an advantage for the farmers but also for the intermediate trade. In the market channel analysis the average prices of best parts of lamb have been compared between the marketing with and without "added values".

The consumption yield of beef, lamb and kid meat consumed in the Biosphere Reserve Rhön was estimated. The tourists are important consumers in the Biosphere Reserve Rhön, but their contribution to the total consumption is just 7.1% for beef, 14.9 for lamb and 4.5% for kid lamb. The tourists are a group of consumers for special dishes. It has nevertheless limits in market capacities. Recently, 600 "Rhön lambs" were marketed with "added values", the demand was 2,000. If all lambs reared in the Biosphere Reserve (estimated 9,000 per year) should be marketed with "added values", other target groups of consumers have to be found.

It was assessed that for all meat an overproduction in the Biosphere Reserve Rhön is given. An export out of the region is necessary. This has to be done in more urban areas, where a underproduction exists. The need of connection between urban and rural (particularly less favoured areas), between production and consumption areas is observable. Regional rural development is difficult without the attention to (adjacent) urban areas.

Conclusions

Special target groups pay attention to meat which is produced in an environmentally friendly manner, like biotope grazing, which is done in agri-environmental schemes. The marketing of these products needs special emphasis to obtain a comparable income like ordinary farming. In the marketing strategy, "added values" are used to attract these consumers and show differences to intensively fattened or imported meat. The following "added values" are used for marketing of meat produced under agri-environmental schemes: animal welfare, rare breeds (if used), environmentally friendly production, biotope maintenance, traditional husbandry pattern and regional distinctiveness. Which "added values" are used for marketing depends on the target consumer groups. The perception and conception of consumers are wide spread. It is necessary to evaluate the target groups of consumers, who pay the most attention to the offered products and who are willing to pay more for "added values". In the Biosphere Reserve Rhön these are mostly German tourists.

Particularly the more prosperous people of an age between 30 and 60 who live in cities of West-Germany pay the most attention to "added values". They have less reluctance to pay more for a special dish. Animal welfare, no antibiotics and no additives fed, environmentally friendly production pattern, particularly with rare breeds are expected as "added values". Surprising there was little attention taken to traditional farming. Only 19% are not willing to pay more. The additional payment for a good mixture of these "added values" is up to 30%. Nevertheless, the majority would like to pay not more than 10 to 15% more.

The fulfilment of such tourist perceptions and expectations can be difficult in the production. Although "added values" would be paid additionally, the production pattern restricts the quantity and quality of meat produced while biotope grazing. Problems of fulfilment of consumer expectations with meat produced while biotope grazing:

- Meat quality can be less than usual (EUROP classification), "added values" have to be taken as a marketing instrument,
- meat quantity is low (e.g. restricted stocking rate and no concentrate feeding; only few contractors on agri-environmental schemes),
- seasonality of production differ from the season of demand and is difficult for permanent market supply,
- limited production potential for rare breeds. If a specific number of these breeds is exceeded, the important rare breed premium and the added value as a rare breed is lost and
- "added values" are often only on regional level successful (transparency of production). The cooperation between farmers and intermediate trader is important.

When the consumers expectations and the product quality are compatible, the market channels determine the action of consumers to purchase special dishes. The purchase must be as easy as usual. The preparation of special meat like lamb or kid meat is mostly not known and not common. Many consumers do not even know the names or the use of many parts of a carcass. They do not

like to ask for advice. Butcher shops could advise consumers in special dishes but many of them do not like doing this. Kid meat, lamb and extraordinary ways of production (organic farming, biotope grazing) do not fit into the usual way of processing and offering. The marketing of special products - especially when they have to get more money - disturbs the enterprise. In the mind of the butchers, it is easier to purchase the carcass from abattoirs and sell it in big quantities for a cheap price. With the attention of consumers to the BSE crisis the butchers' shops became interested in "added values". It was found that consumers' trust in the offered product is linked with the origin, production and processing of the beef. Transparency became an important tool in marketing of many butcher shops. The second important supplier of special dishes are restaurants. The consumers trust the product quality, they do not do the (unknown) cooking and there is no need to store remainders of a carcass as in purchasing for home consumption.

The most important meat supplier to final consumers are supermarkets. Here, the price is the most important aspect in marketing. Consumers do not infer product quality by label, consequently they do not pay more for "added values". Small portions with easy preparation are more important for consumers and best parts of a carcass are favoured. The marketing of meat for higher prices than usual is very difficult and/or limited in quantity. Only on religious holidays do supermarket clients pay increasing attention to extraordinary products. Due to such short marketing periods the competition between all the special offers is enormous.

References

- Rahmann, G., 1998. *Praktische Anleitungen für eine Biotoppflege mit Nutztieren*. Schriftenreihe Angewandter Naturschutz, Bd. 14, Lich
- Rahmann, G., 1997. Contribution of rural tourism to the market for livestock products in LFAs in Germany. Paper presented at the International Conference of LSIRDnetwork in Nafplio, Greece. 23rd - 25th January 1997. *Livestock Systems in Rural Development in Disadvantaged Areas*, pp 57-61