

Preliminary Results to Identifying the Opportunities of the Organic Sheep Dairy Sector in Romania

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Abstract

The organic sheep number raised in Romania is currently relatively low, namely 0.85% of the total sheep number at national level. The development of sheep breeding sector in organic system is very heavily influenced by economical factors, but also consumers' demand for organic products. The goal of the research was to analyze consumer behavior vis-à-vis of organic dairy products derived from sheep, in order to support the decisions that may be taken to develop the sector. Data were collected through telephone interviews using a questionnaire. Interviews were conducted between September-December 2016. 180 respondents were surveyed in total, who answered a questionnaire which included 23 questions. This study revealed that approximately one quarter of respondents have never consumed organic dairy products, while 60% of respondents say they did. Organic cheese is considered to be more expensive when compared to conventionally produced cheese, about 97% of the respondents, while 82% of respondents believe that higher prices are justified. Willingness to pay a higher price for organic products from sheep's milk is very different. Around 13% of respondents are not willing to pay an additional fee for cheese produced in organic system. However, about 2% were willing to pay an additional fee up to 60% more, comparing to conventional cheese products. 38% of respondents are willing to pay the additional price of up to 10%, and 23% of interviewed people are ready to pay an additional charge of 20% of the dairy products obtained by conventional methods.

Keywords: cheese, dairy production, milk, sheep

1. Introduction

Romania ranks third in the EU in terms of sheep numbers (10.07 millions), reared in Romania [1] breeding mainly double- or triple purpose breeds (meat-milk or meat-milk-wool) [2]. Moreover, the country has a pasture surface of 4.9 million ha, which could sustain up to 16 million sheep [3,4]. With more than 95 % of sheep being reared under extensive low-input production systems, and the

breed structure being dominated by indigenous, unimproved breeds (Turcana and Tsigai) [5].

Sheep's milk is consumed only as a processed (either traditional or industrial) product in the form of feta cheese, sheep cheese or other products obtained only from sheep or sheep's milk mixed with cow's milk. Cheese consumption in Romania is around 2.5 kg year⁻¹ person⁻¹ [6]. Most of the milk production is traditionally processed, and is for family consumption or for sale on tourist markets or peasant markets through direct marketing channels. A small amount of milk is delivered to processing companies. The marketing channel in this case is short, consisting of processor, intermediary and consumer [7]. The

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main traditional products made from sheep's milk are: „caș” (cheese), „brânza de burduf” (a strong, salty and kneaded cheese kept in the stomach/skin of the sheep), „brânza în coajă de brad” (kneaded cheese kept in pine bark), „telemea” (a fresh, whole feta-type cheese), „urda” – is made with the whey of the „caș” (cheese). It is like ricotta, relatively high in protein and low in fat.

The price of dairy products obtained in sheep farms is quite low, ranging between 3.1- 3.22 Euro/kg for feta-type cheese and 3.1 - 3.33 Euro/kg for cheese [8].

In this context, finding new niches to add more value to the sheep farms could be a good argument for sheep raising. Sheep farming in the organic system to bring added value of sheep farms, it may be such a niche.

Currently, the sheep number reared in organic system in Romania is very low, only 0.85% of the total number (85.419 heads) [1]. Ilisiu et al. (2013) [8] shown that the strongest motivation for practicing organic farming could be of economical nature, this meaning that the income from organic farming should be higher than what the breeders obtain in the present. For this, however, sheep breeders need consumers, those that reach the final product.

The aim of current study is to assess the possibility of developing sheep breeding sector in the organic system, in terms of consumer behavior towards the dairy products obtained in the organic system.

2. Materials and methods

To collect information were made questionnaires and telephone interviews with consumers in four cities from Transylvania and Banat - Romania, and, namely Cluj-Napoca (46 ° 46'0 "N 23 ° 36'0" E), Tg. Mures (46 ° 32'59 "N 24 ° 33'35" E), Timisoara (45 ° 44'58 "N 21 ° 13'38" E) and Bistrita (47 ° 08'20 "N 24 ° 30'01 "E). The reasons

behind the choice of the four cities to conduct interviews was represented by importance at the national level of the counties where they are located, from point of view of sheep husbandry (the sheep flock raised in the counties where the cities are located represents 24% of the national sheep).

Data collection was conducted through telephone interviews. 180 consumers were interviewed, who responded to questionnaires on organic dairy products. Interviews were conducted between September-December 2016. The choice of respondents was done randomly, phone numbers of respondents were taken from the phone book of the counties in question, and the interview was anonymous. The interview's duration was 10-20 minutes. For the study was prepared a questionnaire, comprising a total of 23 questions. The basis of this survey was at a rate of 78% from the set of questions used by Klumpp et al. (2003) [9].

3. Results and discussion

The percentage of women in this experience comprised 66.67% of the respondents, and that of men 33.33%.

Respondents aged consumers of dairy products from sheep has the lowest representation in the age group 80-89 years (1.67%). With about 15%, is represented the age group of 30 years. For the group aged 30-39 years, the representation was 26.67%. Both the age group of 40- 49, and 50 - 59 is about 28.33% of the sample. The average age is 35, margin ranging between 18-86 years.

95% of respondents consume regularly dairy products, while 5% of respondents consumed only on special occasions (birthdays, weddings, Christmas, Easter, New Year). In terms of frequency of the use, there were differences between sheep cheese, cottage cheese and yogurt/buttermilk. The results are showed in Table 1.

Table 1. Frequency of consumption of different dairy products

| Frequency | Sheep cheese | Cottage cheese | Yogurt/buttermilk |
|-------------------|--------------|----------------|-------------------|
| maximum once/week | 18.33% | 41.67% | 25.0% |
| 2 times/week | 21.67% | 18.33% | 23.33% |
| 3 times/week | 21.67% | 13.34% | 16.66% |
| 4 times/week | 3.33% | 1.67% | 8.33% |
| 5 times/week | 15.0% | 5.0% | 6.67% |
| 6 times/week | 6.67% | 3.33% | 3.34% |
| daily | 13.33% | 3.33% | 8.34% |
| no indications | - | 13.33% | 8.33% |

As a result, 13.33% of those surveyed, eat cheese daily, while one quarter of respondents consume between 4 to 6 times per week. Respondents who consume 2 or 3 times a week cheese, are in percent of 21.67%.

Cottage cheese is consumed daily of 3.33% of respondents, and a maximum once a week 41.67% of respondents. Yogurt/buttermilk is consumed daily of 8.34% of respondents, and quarter of respondents once a week. Two and three times per week is consumed by 23.33% and 16.66% respectively of the respondents. About 18% of the respondents consumes 4, 5 or 6 times a week yoghurt/buttermilk.

The most common sheep's cheese is in consumer preferences, with a percent of 80%. The opposite is goat cheese, which is regularly consumed of 8.34% of respondents, while 78.33% of respondents never eat goat cheese. 13.33% of respondents consume goat cheese rare and rarely. Cottage cheese is consumed regularly by 70.0% of respondents, while 16.67% never eat cottage cheese. A relatively high share (46.67%) of respondents have bought at least once imported dairy products. However, 96.67% prefer local dairy products to the detriment of imported products.

In terms of preferences for certain types of cheese, it reveals that 70% of the respondents buy often „telemea” (feta-type cheese), followed by „brânza de burduf” (a strong, salty and kneaded cheese kept in the stomach/skin of the sheep) (13.33%), „caș de oaie proaspăt” (fresh curd cheese) (11.67%), kneaded cheese (3.33 %); „brânza în coajă de brad” (kneaded cheese kept in pine bark) and „cașcaval ” (cheese) are equally preferred of 1.67% of respondents.

68.33% of respondents agree and fully agree that sheep cheese is more expensive than other types of cheese. Meanwhile, 83.34% of those surveyed agree with the idea that sheep cheese is fatter than other cheeses. Regarding enunciation of the idea that sheep cheese is not as available as other types of cheese, only 30% of respondents agree with this statement. Also, only a small number of respondents (33.34%) agree with sheep's cheese taste that is unusual.

About one quarter of respondents have never consumed organic dairy products. A 15% do not know if they consumed organic dairy products, while 60% of respondents say they have bought/consumed organic dairy products.

Organic cheese was mainly purchased in supermarkets (33%), followed by store farms (22%) and others (16%). Only 11% of respondents have purchased organic cheese from organic stores, while in an equal share (8%) have purchased it from the store dairy products and the weekly market.

Organic cheese is considered to be more expensive when compared to conventionally produced cheese about 97% of the respondents. 82% of respondents believe that higher prices are justified.

The willingness to pay an additional price for organic products from sheep's milk is very different. Around 13% of respondents are not ready to pay an additional fee for cheese produced in organic system. However, about 2% were willing to pay an additional fee of 60%. 38% of respondents are willing to pay an additional price of up to 10%, and 23% a charge of 20% of the dairy products obtained by conventional methods. Only 15% of respondents are prepared to pay an additional fee of 30% and 7% would pay an additional price of 40% of the price of dairy products obtained in the conventional system.

The importance of the different features considered to purchase sheep cheese are shown in Figure 1.

Most of the emphasis is placed on the freshness (78%), on the warranty period (72%) and commercial appearance (50%). The fat content does not influence the decision to purchase sheep cheese. Regarding the warranty period and color, 23% of respondents consider that they are much better to organic sheep cheese compared to that produced conventionally.

Besides the criteria that directly influences the purchasing decisions of sheep cheese, there are aspects of production and marketing nature that influence these decisions (Figure 2).

Consequently, respondents estimated that the purchase decision is influenced by production without antibiotics, animal welfare and correct labeling of products (73% of respondents estimated that production without antibiotics of sheep cheese is very important in the buying decision, 58% of respondents believe as animal welfare influences purchasing decisions, while 50% of respondents consider that having a high importance the correct product labeling). But, also feed from own production, origin of organic farming and low price, they are appreciated important to very

important. It is surprising that regional origin is considered less important by 43% of respondents.

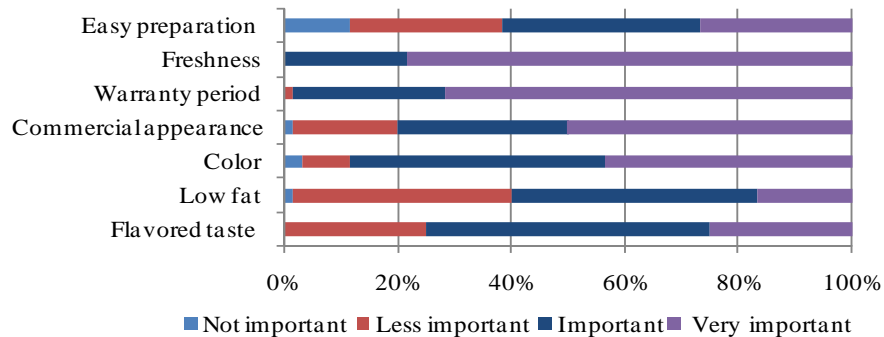


Figure 1. The importance of the various features by buying sheep cheese

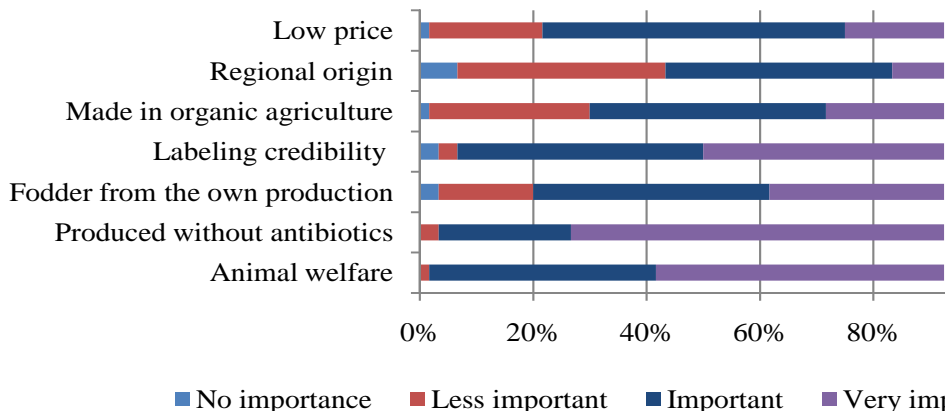


Figure 2. The importance of different characteristics of the production and marketing of sheep dairy product

4. Conclusions

From the consumers' point of view, sheep cheese produced in organic system, meets largely the same features as at least as well as the cheese produced in the conventional system. Characteristics that influencing the purchase decision relates to freshness, warranty period and commercial appearance.

By production of dairy sheep, consumer preferences include giving antibiotics and animal welfare. Also, feed from own production, origin of organic farming and low price can influence positive consumers' purchasing decisions.

Although for a larger representativeness are needed more extensive studies on market research on consumer behavior, however, based on this

study consider that there is a high availability for consumers to purchase dairy sheep products obtained in organic system by paying an additional price compared with the products obtained in conventional system.

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