



## A Traditional Meat Product of Kosovo: Kaverma

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### Abstract

Traditional food products are valuable cultural heritage and play an important role in the development and sustainability of rural areas. Kaverma is a traditional meat product of Kosovo that has been produced for generations, but little is known about its history or consumption. This paper aims to describe the production process and use of Kaverma in the rural communities of the Dragash district, in Kosovo, where sheep and cattle are the main sources of meat production. The paper also discusses the challenges faced in preserving and promoting traditional food products like Kaverma. Datas obtained for this study were collected through field visits, interviews with local producers, and literature reviews. Kaverma is made from fresh sheep meat and has a unique taste. It is served hot as a dish or as cold meat cut into small pieces. Kaverma has not been reported to be produced or used in other parts of Kosovo, and it faces various challenges, including inadequate standardization, insufficient knowledge regarding its nutritional properties, and limited marketing and distribution channels. The production and consumption of Kaverma in the Dragash region contribute to the local rural economy, heritage, food biodiversity, and sustainability. Thus, it is hoped that this work will raise awareness and multiple significance of traditional food products like Kaverma.

**Keywords:** Kaverma, meat, rural, sustainability, heritage, biodiversity.

## Kosova'nın Geleneksel Bir Et Ürünü: Kaverma

### Öz

Geleneksel gıda ürünleri, değerli bir kültürel mirastır ve kırsal alanların kalkınmasında ve sürdürülebilirliğinde önemli bir rol oynamaktadır. Kaverma, Kosova'nın nesillerdir üretilen, ancak tarihi ve tüketimi hakkında çok az şey bilinen geleneksel bir et ürünüdür. Bu makale, koyun ve sığırların et üretiminin ana kaynakları olduğu Kosova'nın Dragash ilçesindeki kırsal topluluklarda Kaverma'nın üretim sürecini ve kullanımını tanımlamayı amaçlamaktadır. Bu derleme de ayrıca Kaverma gibi geleneksel gıda ürünlerinin korunması ve tanıtılmasında karşılaşılan zorluklar da tartışılmaktadır. Veriler, saha ziyaretleri, yerel üreticilerle görüşmeler ve literatür taramaları yoluyla toplanmıştır. Kaverma, taze koyun etinden üretilmekte olup eşsiz bir tada sahiptir. Sıcak olduğunda yemek olarak veya küçük parçalar halinde kesilmiş soğuk et olarak servis edilir. Kaverma'nın Kosova'nın diğer bölgelerinde üretildiği veya kullanıldığı bildirilmemiştir ve yetersiz standardizasyon, beslenme özelliklerine ilişkin yetersiz bilgi ve sınırlı pazarlama ve dağıtım kanalları gibi çeşitli zorluklarla karşı karşıyadır. Dragash bölgesinde Kaverma'nın üretimi ve tüketimi, yerelde kırsal ekonomiye, kültürel mirasa, gıda biyoçeşitliliğine ve sürdürülebilirliğe katkıda bulunmaktadır. Bu çalışma ile geleneksel gıda ürünlerinden olan kavermanın farkındalığının artırılmasına ve kültürel mirasın devamlılığına önemli katkı sağlayacağı beklenmektedir.

**Anahtar Kelimeler:** Kaverma, et, kırsal, sürdürülebilirlik, miras, biyolojik çeşitlilik

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## 1. Introduction

Traditional food products are an important part of the cultural heritage and gastronomy of different regions (Barrere et al., 2020). They are consumed for their unique taste, nutritional value, and cultural significance. Traditional food products have long been known to play an essential role in the development and sustainability of rural areas (Pato, & Duque, 2023). They provide a unique opportunity for producers and processors to differentiate their products, contributing to rural economic development and protecting rural areas from depopulation (Gobattoni et al., 2015; Bi et al., 2022). In recent years, there has been a growing interest in foods that are closely linked to their region of origin, and this interest is related to higher quality, more nutritious, safe, and sustainable foods that also promote cultural identity (Nemeth et al., 2019; Monterrosa et al., 2020; Petrescu et al., 2020). For instance, traditional foods like locally sourced fruits, vegetables, and meats can be a valuable source of income for small-scale farmers and producers in rural areas, and their production can support local economies while providing consumers with high-quality, healthy products. Maintaining and developing further for quality and food safety of these products represents an added cultural, heritage, biodiversity and nutrition values.

Kaverma is a traditional meat product of Kosovo and its history dates back to early. It is produced and continues to be produced traditionally in the region of Dragash district (Opoja and Gora). Although it seems to be very aged, there is no data evidence of the production and use of Kaverma as food in the Kosovar population. It is interesting to mention that this food product has not been reported to be produced or used in other parts of Kosovo, or maybe the use of Kaverma was used a lot earlier and is now completely forgotten. Kaverma is a traditional food product made from fresh sheep meat and is known for its particular taste. It is served hot as a dish and as cold meat which is cut into small pieces. A similar prototype of Kaverma is produced in Turkey, named Kavurma is a traditional coarsely diced, deep fried, meat product produced to preserve the meat and give a shelf life of 6–9 months (Kilic, 2009).

Nowadays, preserving and promoting traditional food products encounters various challenges and opportunities. These challenges encompass a range of factors, including inadequate standardization, insufficient knowledge regarding their nutritional properties, and limited marketing and distribution channels (Food and Agriculture Organization of the United Nations, 2017; Calicioglu et al., 2019; Moreira & Padrao 2021). A typical example that has faced social, cultural and economic challenges over the time is the Kaverma.

The objectives of this paper are twofold. First, there will be a brief historical review of the production of Kaverma food product in Kosovo, with a focus on its values, biodiversity and cultural heritage. Secondly, the prospects, biodiversity and cultural heritage. Secondly, the prospects for a continuous and advanced synergy to raise awareness and generate interest in the cultural and economic significance of traditional food products.

## 2. Material and Method

**2.1. Rural Communities and agro-ecological factors in Dragash:** The region of Dragash is located in the southern part of the Republic of Kosovo in the border triangle with the Republic of Albania in the west and the Republic of North Macedonia in the east and south, with a population of 42.171 inhabitants. This rural community covers an area of 435.8km<sup>2</sup>, a territory that is most often identified from two areas, the Opoja region in the north and Gora in the south, bordered on the edge by the Sharri Mountains. The altitude varies from 750 to 2550 meters above sea level, with an average of 1620 m. The subalpine climate is characteristic with an average annual temperature of 8.6°C. Summers sessions were short and fresh with an average temperature of 18.1°C, while winters were long and relatively cold, with an average temperature of -0.4°C, and mostly covered with snow for about 120 days. The average annual amount of precipitation was about 807 mm (MDP, 2013).

**2.2. Meat production in the region of Dragash:** Meat production in this region mainly (99%) generates from sheep (9,500 head) and cattle (6,450 head), including young and discarded animals: lambs, calves, sheep, and cows, respectively (Sustainable Development Atlas for Dragash, 2013). The dual purpose breeds characterize meat production in this region represented by the Sharri sheep, while autochthonous Busha and its crosses represent the cattle part (Bytyqi, et al. 2005; 2014; 2015). Animal production in this region can be considered semi-extensive, depending on the pastures for about 6 months for the summer period, grazing mainly, and the winter period where the animals are fed mainly indoors with hay and small amounts of feed supplements (corn, wheat bran, or barley). The barns and accompanying facilities seem to be of poor quality. Lambs and calves are fed with milk for a period of about three and six months, respectively. Although accurate data is missing from the local authority, the production of sheep meat in this area is considered to be around 100 tons and around 300 tons of beef per year. Supported by the agro-ecological conditions, the quality of the meat was considered to be very high, being used mainly by local consumers as fresh and in very small cases traditionally processed (sheep: pasterma and kaverma) and (cattle: dry meat and sausage). Livestock activities, traditions, nutrition, and ways of life characterize the originality of this region, which may be lost in most other regions in Europe and beyond.

**2.3. Data collection:** This study was conducted using field research methods in 10 randomly selected villages in the Dragash region (Figure 1). A sample size of 14 farms (representing about 80% of sheep farms of this region used still produce kaverma) out of

50 farms interviewed was calculated. The participants in the research were selected based on their families' common usage and preparation of Kaverma over the years, despite the villages being randomly selected. Data for this paper were collected through face-to-face interviews conducted between October 2021 and August 2022 in rural settlements. During the interviews, detailed descriptions of the Kaverma preparation process were provided.

### 3. Results and Discussion

The production of Kaverma originated as a means of preserving fresh sheep meat, as an alternative to the traditional method of preservation through Pasterma, which was commonly used by farmers living in mountainous regions. Although the technological process involved in producing Kaverma is more complex than that of Pasterma, Kaverma is generally considered easier to consume (Berisha et al., 2018).

**3.1.Preparation of Kaverma:** In Figure 2 was shown the diagram flow of Kaverma, a traditional preserved meat product made from sheep meat. The process involves several steps including slaughtering the animal, removing the internal organs, washing and draining the meat, cooking it with salt, and preserving it with fat.



Figure 1. Sample selected villages in the district of Dragash/Dragaş ilçesinde seçilmiş köylerden incelenen örnekler.

The production of Kaverma starts with the slaughtering of the animal. For the production of Kaverma, the sheep that are slaughtered are typically older and no longer used for reproduction, and their meat is not commonly consumed as fresh meat. The gender of the sheep used in Kaverma production is inconsequential, as both rams and ewes can be used. Slaughtering is followed by draining the blood from the animal and removing the skin, and internal organs including the heart, lungs, stomach, and gut. The stomach is cleaned and stored for later use.

Once the flesh of sheep is obtained, it is divided into 2-4 parts and washed with cold or warm water to remove any impurities. The flesh is then hung for 2-3 hours to drain, and any remaining water is removed. The entire folded flesh is then placed in a large container which is cooked with steam until the bones begin to separate from the flesh. During cooking by boiling by steam a small amount of water is added, salt (the amount of salt added depends on the amount of meat, usually it is based on the farmers' preferences) with no added fat. The steam boiling continues for 7-8 hours, till all bones are removed from the flesh, and as a final product, we have the boiled meat.

The cooked meat is then checked for sufficient salt content before adding onion, garlic, or other desired seasonings (hot pepper, black pepper, garlic, parsley). The meat is then placed in a container for preservation, and malted fat is concentrated to the surface of the meat. The meat is then compressed to remove any remaining water, and the container is sealed tightly. Within two hours, the meat is preserved with the fat on the surface. The resulting product is known as Kaverma. Overall, the process involves careful handling of the meat to ensure its quality and preservation. The use of salt and fat helps to prevent the growth of harmful bacteria, which can spoil the meat.

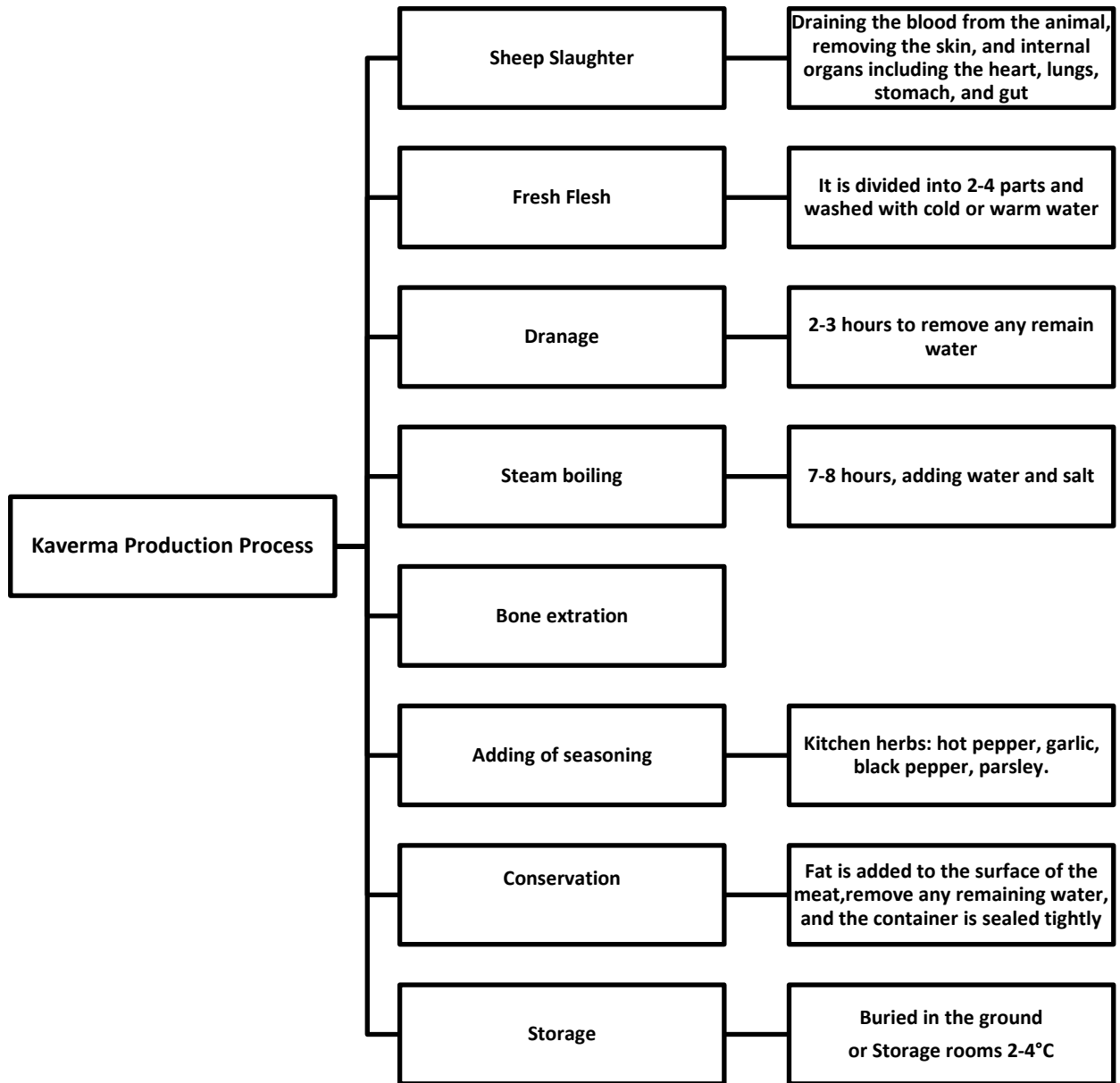


Figure 2. Technological process of Kaverma preparation/ Kaverma hazırlamanın teknolojik yöntem

**3.2.Storage of Kaverma:** As previously stated, Kaverma is a traditional meat-based product, which is commonly produced and preserved by shepherds for future consumption. Kaverma can be conserved through both traditional and modern preservation methods.

**3.2.1. The traditional method of preserving Kaverma:**

The traditional method of preserving Kaverma involves storing it in the stomach of sheep or in the intestine, which has been well-cleaned and preserved with salt during the preparation of the Kaverma. The sheep’s stomach is large enough to store the entire amount of Kaverma, and it is closed tightly before being buried in the ground and covered with a stone slab near the houses or stalls or in the fresh rooms (basement). In rare cases, the Kaverma is also preserved in the intestines, which are well-cleansed in the same way as sausages.

**3.2.2. The modern methods of preserving Kaverma:**

In modern times, boiled Kaverma can be placed in any storage container as the surface of the malted fat ensures Kaverma is hermetically sealed. However, the durability time in small containers is longer. Kaverma to be perfect does not withstand moisture (water-after-boiling) in conservation, but it must have only its fat, obtained during the preparation of Kaverma.

**3.3. Kaverma and Geographical indication**

Geographical indications refer to the protection and identification of a product by associating it with a specific geographical region. These indications provide consumers with information about region-specific characteristics, quality, production methods, and

traditions associated with the region of origin (Yılmaz et al., 2018). Geographical indications play a significant role in marketing strategies by emphasizing the uniqueness and quality of products. Consumers are aware that a product with a geographical indication possesses specific attributes linked to a particular geographical region, and therefore, they prefer such products (Karadaş et al., 2022a). Through geographical indications, producers can safeguard the name of their products, production methods, and product quality. This provides producers with a competitive advantage and supports the fair recognition of their efforts.

Geographical indication products are preferred and valued by consumers, which increases the income of producers in the region and contributes to economic growth. Geographical indication products also hold significant potential for tourism and trade (Yılmaz et al., 2017). They serve as crucial support for small farmers and producers operating in rural areas. These indications help promote local production and strengthen rural economies. Geographical indication products support the sustainability of region-specific agricultural products and crafts (Karadaş et al., 2022b). They are an important tool that not only offers consumers high-quality and authentic products but also supports producers and regional economies (Oraman et al., 2011). By highlighting the geographical origin and region-specific values of products, geographical indications contribute to the preservation of cultural heritage and the promotion of regional development. In this compilation, by contributing to the geographical indication efforts in Kaverma production, both the continuation of cultural heritage in the region will be supported, and the businesses engaged in production in the region will gain visibility and profitability. It will create an income source for the local residents.

## **4. Discussion**

Despite the importance of traditional food products for biodiversity and agro-tourism, it is already known (John et al., 2013; Nguyen et al., 2018; Lin et al., 2021), and farmers in Kosovo have permanent demands for increasing farm food products, there is still a continuous negative trend in terms of the preservation of these traditional products at all or their sustainable technological and economic advancement.

Kaverma is a traditional food product consumed in Kosovo, made from steam-boiled and salted sheep meat. Our study aimed to give data on the technological production of Kaverma the storage conditions required for its preservation, as well as its traditional uses and consumption patterns. Our results showed that Kaverma can be stored in simple containers or even in sheep stomachs in cool rooms and requires low temperatures to prevent contamination and spoilage. In the past, there was known preservation of the Kaverma even inside the ground when storage facilities were missing. However, storage conditions must be carefully monitored after opening, as Kaverma is susceptible to various forms of contamination, including equipment from storage containers and unpleasant odors. These findings suggest that further research is needed to develop better storage solutions and prevent the decline of this traditional product.

However, Kaverma like many other traditional foods in Kosovo also faces challenges such as lack of knowledge about their nutritional value, lack of standardization and lack of marketing and distribution channels. Opportunities for commercialization, such as the growing demand for healthy and unique food products, and the growing interest in local and traditional foods should be developed and supported.

This short communication showed that Kaverma, though nowadays rarely used, can play an important role regarding nutrition values, food biodiversity, heritage, and rural economy sustainability in this region and broader. Clearly, through ages there no evidence of any attempts for further upgrading its dietic aspect of this food product, therefore, traditionally continues to be used in combination with various dishes and consumed with beans as a staple food.

Kaverma has also been used in different celebrity events and seasons, indicating its widespread consumption and value as a nutritional source. However, the production of Kaverma has declined in recent years, with only a few families preserving the traditional knowledge and culture of its preparation. This decline is further compounded by the lack of information and interest among younger farmers in the region. Therefore, there is an urgent need for projects to standardize the production of Kaverma, improve storage conditions after opening, and promote its cultural and nutritional value to ensure its preservation and transfer to future generations.

Although in recent times, the Dragash region is facing a rapid increase in tourist attractiveness (long mountain terrains for hiking, skiing, tourism almost in all seasons of the year), an increase in consumer demand for traditional diets and food diversity and the rapid commercial development of the chain of restaurants and other accommodation facilities which mainly offer traditional food in accordance with the demands of consumers, still, Kaverma has not found its place in the menus offered by the diets offered.

This may be due to low dietary knowledge to increase commercial interest, the lack of interest of farmers to offer this product outside their farm, the lack of technological advancement in the preparation and diversity of its use, the low connection of the business-farm chain in rural areas in this region and in Kosovo in general, the lack of knowledge about this food product by consumers, etc.

A complete commercial, well-structured and detailed approach is also very necessary to increase the general knowledge of this traditional food product within the region of Dragash, in Kosovo and beyond.

## **5. Conclusions**

In conclusion, Kaverma as a traditional food product is an important part of cultural heritage and has unique characteristics such as preparation methods and cultural significance. It often appears to have high nutritional value and is rich in essential nutrients

Therefore, further studies are required not only to culturally preserve this food product, but also to enhance its nutritional value and sensory attributes through additional research on storage and various production methods such as fermentation, drying, and the incorporation of natural flavor ingredients, etc.

In addition, recognizing the long history of animal-human food interactions as conceptualized in modern society has great potential to promote future sustainable food production, as well as biodiversity and cultural heritage in the Dragash region and Kosovo, in general. Moreover, the main conclusion from this overview is that the preservation and enhancing of the production of Kaverma in the food diets, preserves the co-production of food, biological diversity and cultural heritage in the country and beyond.

Kaverma production has a long production history and maintains a rich variety of values. They are perceived to be associated with cultural heritage values and although the exact amounts are unclear, they make a significant contribution to food production. Thus, there are positive relationships between these multiple aspects. At the same time, there are some limitations and challenges that need to be overcome to maintain and promote these positive relationships.

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