

# VIABILITY STUDY ON OBTAINING A GEOGRAPHICAL INDICATION FOR DESIGNATION OF ORIGIN ON SALT LAMB FROM THE COASTAL PENINSULA OF RIO GRANDE DO SUL, BRAZIL

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**Abstract** – Due to the mild temperatures and its location between the Atlantic Ocean and Patos' lagoon, therefore having saltier pastures because of the salty spray of the ocean, the Salt Lamb meat produced in the coastal peninsula of Rio Grande do Sul have obtained attention. The local sheep's breeding is mainly intended for local consumers, therefore, initiatives to develop the lamb production chain will be very valuable for the economic and social development of those cities. This case study reports the efforts made for farmers, technicians, and researchers to help develop the productive chain and verify the viability of obtaining geographical indication for this product.

**Keywords** – Salt Lamb, Geographical Indication, Productive Chain, Sheep Meat.

## INTRODUCTION

World sheep production can be based in two production systems: market and social value oriented. Market oriented are based on profit, large scale and productivity, while social value oriented are based on subsistence, lower production costs, and food security for low-income families (Ramírez-López, 2020). In Brazil, sheep husbandry developed mainly as social value oriented systems; nevertheless, the increasing of income and education of farmers, as well as the expanding demand for lamb meat in Brazil is pressing the sector's development (Monteiro et al., 2021). Due to this early stage of development, many gaps need adjustment in sheep meat supply chain to provide enough quality and safe product.

The lamb meat produced in the peninsula region of Rio Grande do Sul is known for the different flavour, and its appreciation is increasing. There is a regional belief that the localization between Patos Lagoon and Atlantic Ocean generates climate conditions, such as constant ocean spray, that could influence native pastures, and this would be possibly related to the characteristic conditions of lamb meat, qualifying the Salt Lamb for a potential geographical indication (GI). Agriculture, livestock, silviculture, and fishery are the main economic activities of the region. The local sheep's breeding is mainly intended for local consumers, therefore, initiatives to develop

the lamb production chain will be very valuable for the economic and social development of this region.

GI can add value to a product and help develop different sectors of the surrounding territory, providing social, economic, and environmental sustainability (FAO, 2010). Considering the collateral benefits of a GI, such as the unity of different agents of lamb meat supply chain, farmer's association, development of parallel sectors of this region (rural tourism), and environmental, cultural, and human resources valorization, the importance of this process is highlighted. This case study reports the work is being done for obtaining GI for the Salt Lamb and evaluate its viability.

## METHODS

Five phases are necessary to add value to a product and its local of production: identification, qualification, remuneration, reproduction of local resources, and public policies (FAO, 2010). For the viability study of GI, we focused on identification and qualification phases. The authors conducted the formation of a participative study and a technical support group. To better understand the production chain and its problems, a group of local farmers, meat chain suppliers, and food researchers gathered once a month. The technical group provides support for local farmers, articulate with research institutions, and will conduct a study to qualify the Salt Lamb meat.

## RESULTS AND DISCUSSION

### *Study of the Salt Lamb Production Chain*

Despite a long tradition, the national production of sheep meat is still insufficient to meet demand, with Brazil being an importing country. This historical tradition is related to an important socioeconomic role in the economic and nutritional support of low-income families in rural areas. (Sório and Rasi, 2010). The main obstacles to sheep meat production are the low number of specialized abattoir and clandestine slaughter. Clandestine slaughter can cause public health issues as it increases the circulation of zoonoses, hampers animals' movement control, and facilitate tax evasion (Sório and Rasi, 2010).

The lack of coordination among sheep chain agents is evident due to the lack of information, management, and professionalism of the activity (Canozzi et al., 2013), which is based on informality (Sório and Rasi, 2010). However, the activity has great potential, considering the changes in production systems, herd standardization, production scale

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and efficiency, and product differentiation (Canozzi et al., 2013).

Despite its notoriety, the Salt Lamb meat production chain is also unstructured mainly due to informal slaughter and disarticulation between the production chain agents. Table 1 presents sheep population data between 2012 and 2021 provided by the Livestock Health Inspection Authority of Rio Grande do Sul. The coastal peninsula region, which comprehends the cities of Capivari do Sul, Palmares do Sul, Mostardas, Tavares, and São José do Norte, has the sum of its average herd more than 26 thousand heads of sheep. However, the sum of this period shows that only 1,179 heads have registered output to the slaughterhouse by issuing an Animal Transit Guide (ATG), which corresponds to an average of only 4.4% of animals slaughtered under regular conditions. These indicators highlight the huge problem of clandestine slaughter in this region.

**Table 1.** Population and slaughter output data recorded by the Animal Transit Guide (ATG) in cities located on the coastal peninsula of Rio Grande do Sul between 2012 and 2021.

City	Average herd	Output to the slaughter recorded	Relative frequency (slaughter vs population)
Capivari do Sul	1.982	119	6,0%
Mostardas	13.666	422	3,1%
Palmares do Sul	4.077	99	2,4%
São José do Norte	4.924	374	7,6%
Tavares	2.079	165	7,9%
Total	Σ 26.727	Σ 1.179	4,4%

To obtain GI it is necessary that farmers association coordinate to slaughter animals in a slaughterhouse, tracing lambs from the farm and standardize operational procedures from the farm to the industrialization process. The consumers must have access to that information and all processes should be auditable from an external controllership agent. All agents must coordinate for it to happen, the offer of animals to slaughter must be relatively regular, with standardized animals in size, breed, age, nutritional management and fat coverage. It is clear that all these advances will demand time, adjustments and efforts from sheep farmers, input suppliers and meat industry. For these reasons, we do believe that the present work may help to correct these failures in the production chain and reduce the illegal slaughter.

#### *Legal and Technical Requirements for Obtaining a Geographical Indication in Brazil*

In Brazil, GI is an industrial property instrument that seeks to distinguish the geographical origin of a particular product or service. According to the art. 176 of the Industrial Property Law (IPL) N° 9,299 (1996), IG constitutes by indication of provenance or denomination of origin (DO) (Brasil, 1996).

The DO is considered the geographical name of a country, city, region, or locality of its territory that designates a product or service whose qualities or characteristics are exclusively or essentially due to the geographical environment, including natural and human factors. The documents that should be submitted for a DO application must include the proof of the influence of the geographic environment on the

qualities or characteristics of the product or service; i.e., the cause-and-effect relationship between the *terroir* and those qualities or characteristics that distinguish the product or service. Documents such as theses, dissertations, technical studies, and scientific article should be attached to the request.

For this reason, parallel to the meetings, the food researchers are pursuing grants to obtain support from Brazilian public research agencies to finance the study. The study aimed firstly to prove the distinction of the product and then proving that the quality of the Salt Lamb meat is related to the *terroir* where the animal was raised. To do so, the characteristics of lambs that are recognized by locals as typical of the region such as age, fat finish, conformation, and minimum carcass weight should be established. The centesimal composition of salt lamb meat and the native pasture of the coastal peninsula are going to be determined. The lipid profile of salt lamb meat samples and the profile of volatile compounds from the lamb meat and the peninsula's native pasture samples will be obtained. A quantitative descriptive sensory analysis of the meat is planned to be conducted; in this way, the Salt Lamb sensory characteristics can be established. The generated data and the main results are going to be summarized in a dossier, so the Salt Lamb producers can submit it to the NIIP to obtain the IG by DO.

## CONCLUSION

Due to the problems associated with the Salt Lamb meat production chain related above, actions that aim to promote the production of quality meat and the legal trade of animals are of paramount importance to the sector's development and the coastal peninsula region. The production chain organization is necessary, so, in this way, the demand can offer a product with guaranteed quality standards, which adds income to the producer and all the chain links. Obtaining an IG with the steps inherent to the process can become an important tool to fulfil this aim.

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