

ARTISANAL CHEESE WORKSHOPS IN ALAGOAS, BRAZIL: KNOW-HOW, REINTERPRETATIONS AND CHALLENGES IN THE LEGALIZATION OF ACTIVITIES

As fabriquetas de queijos artesanais em Alagoas, Brasil: saber-fazer, ressignificações e impasses na legalização das atividades

Las queserías artesanales en el estado de Alagoas, Brasil: saber hacer, resignificaciones y dilemas en la legalización de las actividades



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ABSTRACT

The production and marketing of artisanal dairy products is a widespread agri-food activity in the Northeast of Brazil, maintained mainly by rural producers linked to family agribusiness. Based on this approach, this article aims to analyze the dynamics of the production of these foods in cheese workshops in the state of *Alagoas*. The empirical context used was the Dairy-Producing Territory, located in the hinterland of the state, due to its economic, social and cultural configuration, which is linked to the development of dairy farming and the expansion of dairy product processing units. The methodology is based on theoretical, documentary and field research. The empirical research was carried out between 2019 and 2021, period in which 22 production units were identified. In 2024, new fieldwork was carried out with the purpose of updating the collected information. On these occasions, the continuity of cheesemaking practices in the workshops was verified. Although these establishments play an important role in the processing and distribution of cheese and butter in local and regional market channels, they operate informally in relation to current legislation. Faced with pressure from the health inspection authorities and an increase in production capacity, the workshops have adopted processes of readjustment and technical specialization, which have given new meaning to traditional knowledge and artisanal practices in the production of dairy products.

Keywords: Dairy products; Artisanal production; Family farming; Health legislation; State of Alagoas.

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RESUMO

A produção e comercialização de derivados de leite artesanais são atividades agroalimentares difundidas no Nordeste brasileiro, mantidas, principalmente, por produtores rurais vinculados à agroindústria familiar. Com base nessa abordagem, este artigo tem como objetivo analisar as dinâmicas de elaboração desses alimentos em fabriquetas de queijo de Alagoas. O recorte empírico utilizado foi o Território da Bacia Leiteira (TBL), localizado no sertão do estado, devido à sua configuração econômica, social e cultural, que está ligada ao desenvolvimento da bovinocultura leiteira e à expansão das unidades de processamento de produtos lácteos. A metodologia está fundamentada em pesquisas teóricas, documentais e de campo. As investigações empíricas ocorreram entre 2019 e 2021, período em que foram identificadas 22 unidades de produção. Em 2024, foram efetuados novos trabalhos de campo que tiveram como propósito atualizar as informações coletadas. Nessas ocasiões, verificou-se a continuidade das práticas queijeiras nas fabriquetas. Embora esses estabelecimentos desempenhem papel importante no processamento e distribuição de queijo e manteiga nos circuitos de mercado local e regional, seu funcionamento é informal em relação à legislação vigente. Diante das pressões dos órgãos de inspeção sanitária e da ampliação da capacidade produtiva, as fabriquetas adotaram processos de readequação e especialização técnica, que ressignificaram os saberes tradicionais e as práticas artesanais de elaboração dos derivados de leite.

Palavras-chave: Derivados de leite; Produção artesanal; Agroindústria familiar; Legislação sanitária; Alagoas.

RESUMEN

La producción y comercialización de derivados artesanales de leche son actividades agroalimentarias difundidas en el noreste de Brasil, mantenidas, principalmente, por productores rurales vinculados a la agroindustria familiar. Con base en este enfoque, el objetivo de este artículo es analizar las dinámicas de elaboración de estos alimentos en queserías en *Alagoas*. El recorte empírico utilizado fue el Territorio de Producción Lechera, ubicado en el sertón del estado, debido a su configuración económica, social y cultural, vinculada al desarrollo de la ganadería lechera y a la expansión de unidades de procesamiento de productos lácteos. La metodología se fundamenta en investigaciones teóricas, documentales y de campo. Las investigaciones empíricas se desarrollaron entre 2019 y 2021, periodo en el que se identificaron 22 unidades de producción. En 2024, se realizaron nuevos trabajos de campo con el propósito de actualizar la información recopilada. En esas ocasiones, se verificó la continuidad de las prácticas queseras en las queserías. Aunque estos establecimientos desempeñan un papel importante en el procesamiento y distribución de queso y mantequilla en los circuitos de mercado local y regional, su funcionamiento es informal con respecto a la legislación vigente. Ante las presiones de los organismos de inspección sanitaria y la ampliación de la capacidad productiva, las queserías adoptaron procesos de readecuación y especialización técnica, lo que resignificó los saberes tradicionales y las prácticas artesanales en la elaboración de los derivados lácteos.

Palabras clave: Derivados lácteos; Producción artesanal; Agroindustria familiar; Legislación sanitaria; Estado de *Alagoas*.

1 INTRODUCTION

Artisanal cheese production constitutes a territorialized agri-food activity with cultural and economic significance, deeply rooted in the semi-arid region of Brazil's



Northeast (Silva, 2021). Among the establishments involved in production, Cheese Workshops are particularly noteworthy for their processing systems, which demonstrate a convergence between artisanal methods and innovative production practices. Regarding product types, both traditional and reimagined forms of *queijo coalho* and *queijo manteiga* are especially prominent, alongside cream butter and butter-from-a-bottle.

These units have scaled up their production as a result of increased capacity for milk collection, as well as for the processing and distribution of dairy products within local and regional markets. In this sense, studies by Azevedo and Locatel (2009), Menezes (2009), and Silva (2021) identify these establishments as the primary suppliers of artisanal cheese and butter sold and consumed throughout the Northeast region.

Although operating with a semi-standardized infrastructure for food production and distribution, Cheese Workshops lack formal regulatory authorization. As a result, they are subject to punitive actions by inspection agencies and are frequently accused of failing to comply with sanitary regulations. This study argues that the pressures faced by these establishments also originate from the predatory competition exerted by industrial dairy companies backed by large-scale corporate capital. Accordingly, the following sections seek to analyze the agri-food dynamics underpinning the production of artisanal dairy products in *Alagoas*, with particular attention to the impact of productive innovations on traditional agri-food knowledge and the regulatory challenges associated with these activities.

The empirical scope of this study is the Dairy-Producing Territory situated in the semi-arid region of *Alagoas*. This territory, constituted through power relations (Raffestin, 1993), exhibits a historical, cultural, social, and economic configuration that is deeply intertwined with the expansion of livestock farming and dairy production (Andrade, 2011).

The methodology employed in this study integrates theoretical, documentary, and field research approaches. Empirical investigations were conducted using the snowball sampling technique (Vinuto, 2014) between 2019 and 2021, and more recently in 2024. During the initial phase, semi-structured interviews were administered in 22 production units. In 2024, follow-up field visits were undertaken to update and expand the dataset. On this occasion, new interviews were conducted in the previously identified Cheese Workshops using guided interviews (Gil, 1999), a method characterized by the use of specific and direct questions while still allowing respondents the flexibility to articulate their perspectives freely on the topics addressed.

To deepen the discussions introduced in this section, the analysis is structured into two subsections. The first examines the production of artisanal foods in Cheese Workshops,



with an emphasis on the interplay between artisanal practices and processes of productive innovation. The second explores the current landscape of these activities in *Alagoas*, considering the existing regulatory framework and the role of sanitary inspection agencies.

2 TRADITION, INNOVATION, AND PRODUCTIVE DIVERSITY IN CHEESE WORKSHOPS

The promotion of dairy production has brought about significant changes in the productive configuration of artisanal cheese in the Northeast. Menezes (2009), in a study conducted in the state of Sergipe, supports this perspective by noting that, historically, cheese possessed primarily use value—produced mainly for household consumption, with occasional sale of small surpluses. Within this context, women emerged as the main agents responsible for cheese-making activities. Today, female-led cheese production continues to take place in small-scale agricultural establishments characterized by limited bovine milk output, where the spaces used for cheese processing frequently overlap with domestic environments (Silva, 2021; Silva & Menezes, 2022).

However, as the scale of cheese processing expands, these activities are increasingly transferred from the domestic sphere to Cheese Workshops—semi-standardized processing facilities where responsibility for production practices is assumed primarily by men, including unit owners and informal workers associated with family farming. While this shift reflects a gender-biased perception of women’s labor, no evidence of intensified conflict over control of dairy processing activities was observed within these establishments.

Although some units have been relocated from agricultural establishments, they continue to be operated by families involved in family farming. As a result, the labor relations and productive dynamics of Cheese Workshops display features consistent with the concept of Family Agri-food Industry (Silveira & Heinz, 2005; Cruz, 2020). Given the varying theoretical and operational interpretations of the term, it may also be associated with the notion of Small-Scale Rural Agri-food Industry (Prezzoto, 2005).

Silveira and Heinz (2005, p. 2) note that the term *Family Agri-food Industry* has been used “to refer to small-scale units for the processing and/or transformation of animal or plant-based products, located in rural areas and managed by the farmer and their family.” The association between “agriculture” and “industry” does not imply the transformation of the family production unit into a large-scale agri-food operation in the same way as conventional



industry¹. On the contrary, Silveira and Heinz (2005), along with Cruz (2020), emphasize the distinct characteristics of the production process—particularly its small-scale nature and the preservation of traditional know-how and artisanal practices—which confer unique attributes to the food products, recognized and legitimized by producers within the local territory.

With regard to dairy processing units, Cabral and Costa (2016) highlight that, in 1902, two cheese-producing establishments were operating in the state of *Alagoas*: one in Palmeira dos Índios, located in the Agreste region, and another in Santana do Ipanema, in the semi-arid hinterlands. Similarly, Andrade (1990) documents the existence of the Jacaré dos Homens Dairy Cooperative in 1951, which included 81 members and reported a daily milk production exceeding 12,000 liters. The cooperative also maintained a cheese factory with a processing capacity of up to 4,000 liters of milk per day.

Until the 1940s, however, dairy processing in the state remained a secondary activity, largely overshadowed by the predominance of beef cattle farming (Andrade, 2011). This scenario began to change in the second half of the 20th century, spurred by investments directed toward the development of dairy cattle farming—an activity which, through processes of productive specialization, including nutritional and genetic improvement of livestock, gradually became predominant in the semi-arid region of *Alagoas*.

Silva (2021) observes that the territorial significance of milk production has not only attracted the establishment of dairy plants but also stimulated small- and medium-scale artisanal dairy production within Cheese Workshops. The Industrial Zoning Survey of *Alagoas*, conducted in 2014 by FIEA, identified 42 dairy production establishments across the municipalities comprising the Dairy-Producing Region, including Major Isidoro, Batalha, Monteirópolis, Jaramataia, Belo Monte, Cacimbinhas, and Jacaré dos Homens. Among these, Major Isidoro stood out with 24 operational units (Table 01).

Although these data do not differentiate between informal and regulated establishments, a 2016 survey conducted by the Agricultural Defense and Inspection Agency of *Alagoas* (Adeal) revealed that only ten dairy production units within the Dairy-Producing Territory were registered with the State Inspection Service of *Alagoas* (SIE/AL). Of these, five were located in Major Isidoro, two in Cacimbinhas, and one unit each in Jaramataia, Batalha, and Olho d'Água das Flores.

¹According to Prezzoto's (2005) analysis, conventional agri-food industry is centered on large-scale urban-industrial production, where value generation is achieved through the expansion of production scale.

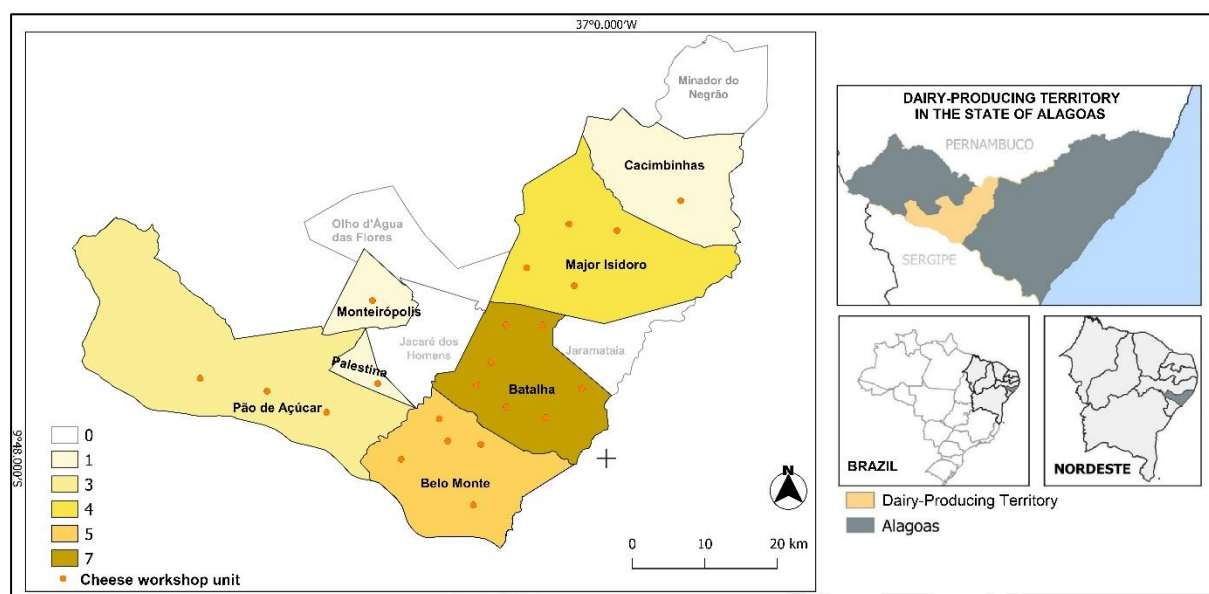


Table 01 – Dairy-Producing Territory (*Alagoas*): dairy product manufacturing units, 2014

Municipalities	Number of Establishments	Percentage (%)
Major Isidoro	24	57.14
Batalha	6	14.29
Monteirópolis	5	11.91
Belo Monte	2	4.76
Jaramataia	2	4.76
Cacimbinhas	2	4.76
Jacaré dos Homens	1	2.38
TOTAL	42	100

Source: FIEA (2014). Compiled by the authors (2025).

This information suggests that the agri-food industries identified by FIEA in 2014 were predominantly informal operations. The relevance of these establishments within the territory's agri-food landscape is corroborated by field research, which identified 22 active Cheese Workshops (Figure 01). Among the municipalities hosting these workshops, Batalha, Belo Monte, and Major Isidoro stand out for their higher concentration of units. However, due to reprisals by sanitary inspection agencies, the number of Cheese Workshops has declined in recent years, as noted in the accounts provided by interviewees. The threat of being reported has led many units to operate discreetly, a circumstance that obscures efforts to construct an accurate representation of their actual presence.

Figure 01 – Dairy-Producing Territory (*Alagoas*): cheese workshops, 2019-2024

Sources: Territorial Grids – IBGE (2020); SEPLAG/AL (2020); Datum: SIRGAS 2000 EPSG: 4674. Compiled by the authors (2025).

The Cheese Workshops identified in the Dairy-Producing Territory process, on average, between 250 and 975 liters of milk per day (Table 02). These units are predominantly managed by family labor and play a critical role in generating income for rural households. Owners frequently report that the creation of these workshops was influenced by knowledge and experience gained through domestic cheese-making practices (Silva & Menezes, 2022).

Table 02 – Dairy-Producing Territory (*Alagoas*): milk processing in cheese workshops, 2019-2024






Municipalities	No. of Production Units	Average daily volume of milk (L) processed per workshop
Batalha	7	814
Belo Monte	5	420
Major Isidoro	4	975
Pão de Açúcar	3	883
Monteirópolis	1	250
Palestina	1	700
Cacimbinhas	1	400

Source: Field Research (2019-2024). Compiled by the authors (2025).

Among the food products manufactured in the Cheese Workshops, traditional artisanal items are particularly prominent (Table 03), including *queijo manteiga*, *raspa do tacho*, *queijo coalho*, cream butter, and butter-from-a-bottle. The production of these items preserves traditional knowledge, which is also transmitted through agri-food practices across other Northeastern states (Azevedo & Locatel, 2009; Menezes, 2009; Silva, 2021). Nonetheless, specificities related to cheese-making techniques and the unique experiences of individual producers are also frequently noted.

Some Cheese Workshops were found to produce both traditional and innovative varieties of cheese. Traditional artisanal foods are closely tied to historical and cultural references rooted in agri-food identity (Muchnik, 2006). In contrast, innovative artisanal products are characterized by the concept of creativity (Silveira & Heinz, 2005), emerging from the reinvention of practices by cheese producers. These innovations are shaped by shared experiences among producers and by training provided through institutional networks, particularly the Brazilian Micro and Small Business Support Service (Sebrae), the Institute for Innovation in Sustainable Rural Development of *Alagoas* (Emater), and the Brazilian Agricultural Research Corporation (Embrapa).

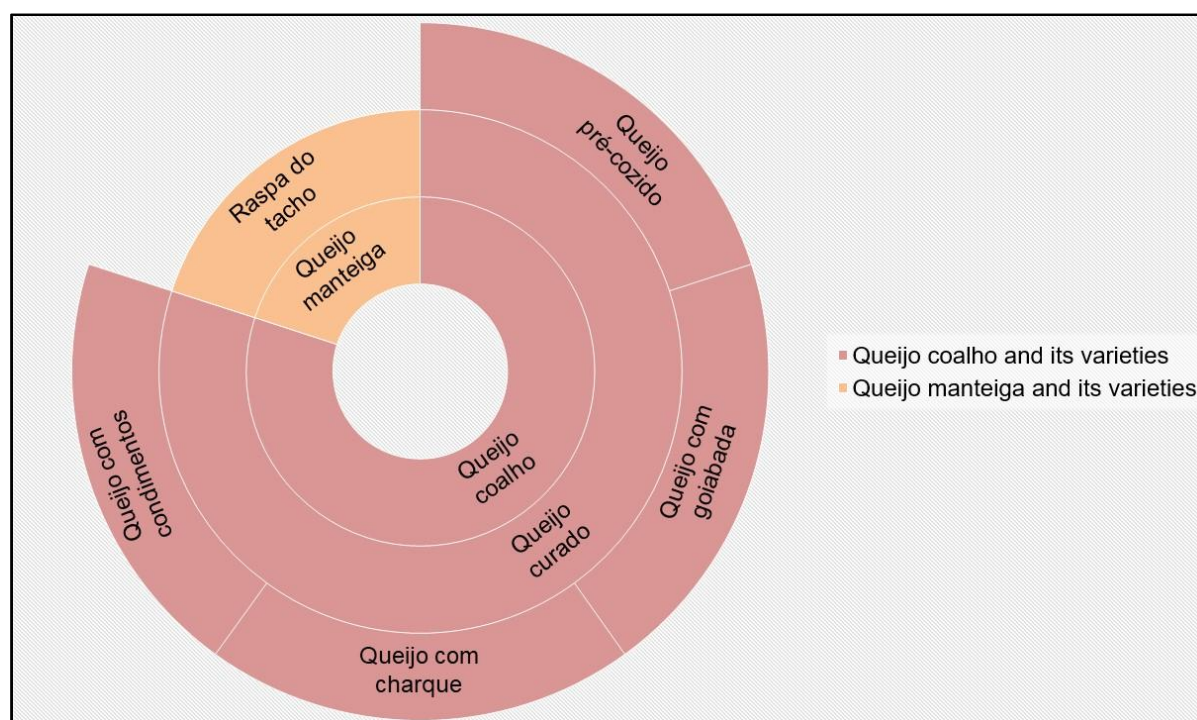
Table 03 – Dairy-Producing Territory (Alagoas): main dairy products produced in cheese workshops, 2019-2024

Products	Description
 <p>Queijo coalho</p>	<p><i>Queijo coalho</i> is produced through the handling of raw curd. The production process involves the following steps: adding rennet to the milk, allowing fermentation, cutting the curd, separating the whey from the curd mass, pressing the curd into molds made of wood, plastic, or stainless steel, followed by brining and maturation.</p>
 <p>Queijo manteiga</p>	<p><i>Queijo manteiga</i> is made by cooking the curd with added salt and liquefied butter. Once a yellow, pasty consistency is achieved, the cheese is removed from the pot and placed into plastic molds.</p>
 <p>Raspa do tacho</p>	<p><i>Raspa do tacho</i> is obtained as a byproduct of <i>queijo manteiga</i> production. The term “<i>raspa</i>” refers to the portion of the cheese that becomes toasted or slightly burned due to direct contact with the bottom of the cooking pot.</p>
 <p>Cream butter</p>	<p>Butter is produced by churning cream with salt, either manually or mechanically. To obtain the cream, milk is left to rest so that the fat rises to the surface, from which it is then collected. This step may also be performed using cream separators.</p>
 <p>Butter-from-a-bottle</p>	<p>Butter-from-a-bottle is the liquefied form of butter, produced by cooking the cream obtained through the same methods used in butter production. It is commonly used in home cooking and in the preparation of <i>queijo manteiga</i>.</p>

Source: Field Research (2019-2024). Compiled by the authors (2025).

In the inner circle of Figure 02, the primary matrices of traditional artisanal cheeses—*queijo coalho* and *queijo manteiga*—produced in Cheese Workshops are presented. From these foundations, other traditional (intermediate circle) and innovative (outer circle) varieties have emerged. This framework supports Muchnik’s (2006) argument that traditions should not be interpreted merely as an uncritical return to the past; rather, they must also be understood in relation to present contexts and evolving dynamics.

Figure 02 – Dairy-Producing Territory (Alagoas): matrices and traditional and innovative varieties of artisanal cheese, 2019-2024



Source: Field Research (2019-2024). Compiled by the authors (2025).

The structure of Figure 02 illustrates that *raspa do tacho*, a traditional variety, originated from *queijo manteiga*, while *queijo curado*, another traditional variant, evolved from *queijo coalho*. This variant is characterized by specific features in its production process, including manual preparation, the use of wooden molds, and a flavor-enhancing technique involving brining that is gradually released by the cheese itself (Menezes & Silva, 2022). This method eliminates the need for refrigeration, which, according to both producers and consumers, alters the cheese's flavor profile.

Among the traditional cheeses, only *queijo coalho* has served as a basis for the development of products classified as innovations by cheese producers. While *queijo pré-cozido* is obtained by preheating the curd during the production process, the other innovative varieties result from the incorporation of additional ingredients such as guava paste, seasonings (including oregano, pepper, and olives), and *charque* (cured meat) into the cheese.

The incorporation of these ingredients results from both technical incentives and the proactive engagement of Cheese Workshop owners in the reinvention of food products. From Boucher's (2006) perspective, the rapid dissemination of such innovations among

local actors reflects an operational specificity of Localized Agri-Food Systems (LAFS)². These processes are facilitated by the geographic proximity inherent to the territory, which promotes the diffusion of passive externalities and the sharing of specialized knowledge. In line with the discussions presented by Muchnik (2006), these new recipes exemplify the emergence of culinary trends that signal a dynamic and evolving tradition. Although recently adopted into local consumption patterns, these innovative products underscore the vitality and adaptability of the territory's agri-food culture.

Muchnik, Biénebe, and Cerdan (2005) suggest that newly developed products may, over time, acquire the status of tradition. Building on this perspective, Hobsbawm and Ranger (2008) argue that traditions are invented and become consolidated through the preservation of symbols and practices that are selected and legitimized as cultural references by social groups over time. Cheese created through the reinterpretation of traditional varieties already established within the territory may, eventually, shed their association with innovation and novelty and come to be recognized as traditional foods. Although the trajectory of this process is inherently uncertain, it may be shaped by the agency of producers, the influence of institutional networks, and the redefinition of consumer food identities that drive demand for these products. Furthermore, the development of communication channels grounded in kinship and friendship networks facilitates the exchange of knowledge and the dissemination of successful practices related to artisanal dairy production.

Labor relations within these establishments are shaped by human values rooted in proximity and reciprocity—elements that, as interpreted by Sabourin (2006), define structures that are simultaneously social and economic in nature. In contrast to large capitalist enterprises, which are typically characterized by work intensification, production standardization, individualism, and competitiveness, Cheese Workshops exhibit values such as responsibility, trust, mutual assistance, and friendship among owners, workers, and raw material suppliers.

These activities also highlight the complexity inherent in the use of material objects, as they integrate artisanal tools and practices—such as manual production and the use of

² According to the perspectives of Muchnik and Sautier (1998), Cerdan and Sautier (2002), and Muchnik, Cañada, and Salcido (2008), LIAFS (Localized Agri-Food Systems) are characterized by the formation of territorial food production systems driven by geographic proximity and strengthened by social networks and organizational trust among the actors involved. What initially emerges as localized economic potential is also defined as practices rooted in agri-food culture, which, in turn, contribute to the social embeddedness of local groups.

wooden molds, presses, and workbenches—with small-scale industrial machines, utensils, and equipment, including vacuum sealers, freezers, cold storage chambers, cream separators, and stainless-steel benches, molds, and tables. While human labor remains central to the operations of Cheese Workshops—preserving the practices, experiences, and knowledge involved in dairy production—these establishments are increasingly shaped by the technological restructuring of productive processes. As Baudrillard (1995, p. 15) suggests “we live at the pace of objects,” meaning that our lives and rhythms are increasingly defined by the continual succession of material artifacts.

The introduction of productive specializations in Cheese Workshops is driven by the expansion of food production scale, the technical adaptation of activities in response to pressures from sanitary inspection agencies, and the ongoing cooperation and exchange of information among producers, intermediaries, consumers, institutional networks, and researchers. As Salcido (2017) argues, technological and innovation-oriented changes have the potential to enhance productive activities and open new market niches. However, such transformations should be anchored in a social construct that prioritizes the interests of the groups responsible for sustaining these productive practices. It is frequently observed that the involvement of public and private institutions with cheese producers results in top-down directives that fail to acknowledge local governance structures, often neglecting the implementation of policies that are responsive to producers’ demands and socio-economic conditions.

Despite ongoing reinterpretations, dairy production remains rooted in handling methods that draw upon past experiences and derive legitimacy in the present through the embodied knowledge involved in processing. This continuity is reflected in the intersubjective nature of traditional cheese makers’ know-how, who continue to employ artisanal techniques and tools in food production.

Although the adoption of new tools and production procedures has transformed the operational dynamics of Cheese Workshops, the work conducted in these establishments continues to be regarded as artisanal. As Muchnik (2010) argues, it is not the complexity of the activities, conformity to innovation standards, or production volume that distinguishes artisanal products from industrial ones. From Cruz’s (2012) perspective, the artisanal character of a product is defined by the authenticity of the know-how, the way techniques are applied, and the reputation the product acquires through the actors involved in its production. In the Dairy-Producing Region, cheese artisans are skilled custodians of the knowledge required for dairy production. Their expertise is rooted in experiences and

knowledge passed down from previous generations, preserved and transmitted through oral tradition and hands-on observation.

The interrelation of cultural, social, and economic elements anchored in the territory underpins the organization of productive and labor relations within Cheese Workshops. Drawing on *in situ* observations and the analyses of Azevedo and Locatel (2009) and Menezes (2009), which explore territorial dynamics related to dairy production in the states of Rio Grande do Norte and Sergipe, respectively, it becomes clear that these establishments function as production units grounded in local capital. They specialize in the manufacture of artisanal food products that serve a well-established domestic market and engage in the regional distribution of their output across the Northeast.

With respect to distribution and supply networks, Vasconcelos Júnior (2016) emphasizes that, since the second half of the 20th century, Cheese Workshops have played a prominent role in supplying dairy products to both urban and rural areas of *Alagoas*. The growing appreciation for artisanal goods is attributed to the enduring agri-food identity maintained by both local residents and migrants from the semi-arid hinterlands who have settled in urban centers.

This dynamic has been fueled by the expansion of circulation networks and the increasing demand for dairy products. Initially distributed through localized mobility, these products are sold in open-air markets and a variety of commercial outlets, including bakeries, supermarkets, grocery stores, butcher shops, snack bars, and specialty shops for cold cuts and dry goods. The distribution of products to more distant areas relies heavily on intermediaries, as well as on Cheese Workshop owners themselves, who often invest in private vehicles to transport their goods. As a result, these artisanal products have become integrated into broader commercial flows, now reaching urban centers throughout *Alagoas* and major cities in other Northeastern states, such as Bahia, Pernambuco, and Paraíba.

The findings indicate that territorially embedded social, cultural, and economic practices are fundamental to the establishment of production units, whose consumer goods are legitimized through references to origin (Goodman, 2003; Marsden, 2004). The spatial location of these establishments within the territory reveals key elements of feasibility that are essential to the structuring and continuity of their operations.

Despite the spatial dispersion of economic activities resulting from the expansion and modernization of information and transportation networks, local factors—such as the proximity between processing units and raw material sources—continue to play a decisive role in shaping the distribution of establishments. This pattern is commonly observed in



agglomeration economies associated with food production, which, as noted by Requier-Desjardins, Boucher, and Cerdan (2006), are sustained by territorial externalities—including resources, know-how, labor availability, and a dynamic consumer market—that support the localization of agri-food production units.

Although artisanal products from Cheese Workshops are experiencing growing demand and are supported by favorable social, cultural, and economic conditions that sustain their presence in the territory, the absence of adequate regulatory frameworks remains the main obstacle to the consolidation and advancement of these activities. The following section explores this issue by analyzing the regulatory context of artisanal dairy processing and the legalization of animal-based food production in both Brazil and the state of *Alagoas*.

3 THE PRODUCTION OF ARTISANAL DAIRY PRODUCTS AND THE CONTRADICTIONS IN ACTIVITY REGULATION

Prezzoto (2005) emphasizes that, in Brazil, the regulation of food production and commercialization is primarily based on sanitary criteria (i.e., the absence of disease-causing microorganisms) and legal compliance (adherence to commercialization laws). The author critiques these regulatory frameworks for failing to account for technical aspects that influence product integrity throughout the entire production chain, as well as for overlooking cultural, social, and ecological dimensions embedded in the product. When standardized quality requirements are not met, the activity is classified as informal, irrespective of its production scale or organizational structure. Muchnik (2006) observes that this issue is particularly prevalent among traditional products in Latin America, which, despite having reputations grounded in recognized quality standards, often remain unregulated.

In this study, the concept of the informal sector used to describe Cheese Workshops is grounded in the definition proposed by Wilkinson and Mior (1999, pp. 32–33), who characterize informal activity as one that does not adopt the norms and regulations that prevail at a given moment in the sector in which it operates. In line with the interpretations offered by these authors, as well as by Cruz (2012; 2020), such practices should not be construed as illegal, as the products resulting from these establishments are not prohibited—unlike illicit activities such as drug trafficking or smuggling. Rather, the operations carried out in these units are considered informal because they do not comply with current regulatory standards established by the State, particularly with respect to labor

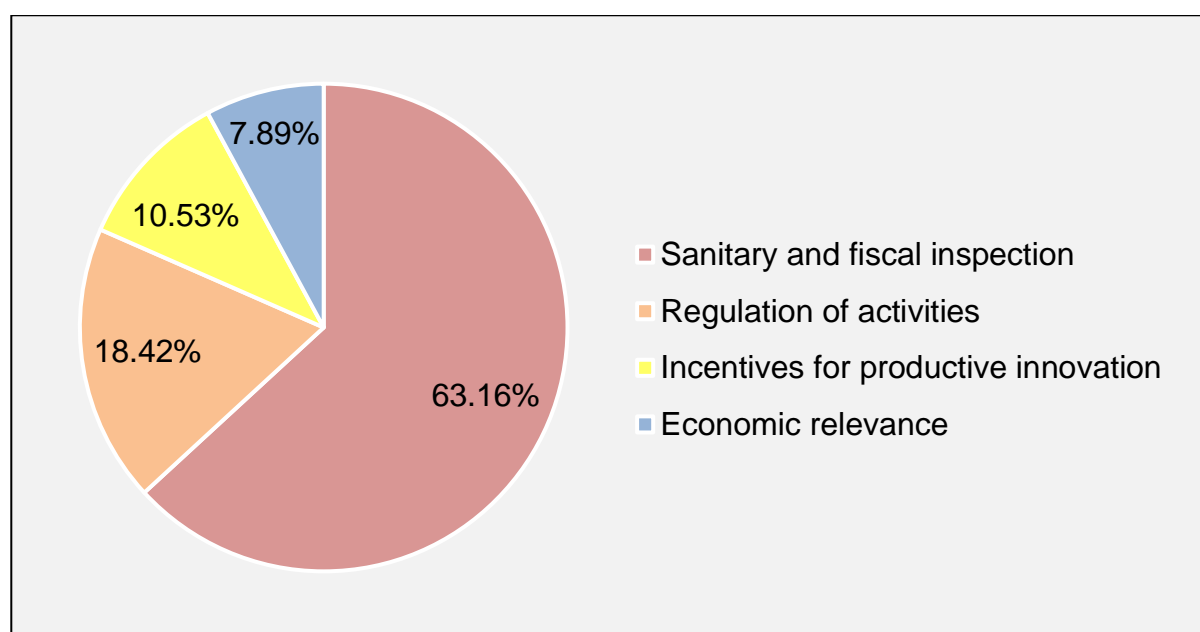


relations, infrastructure, production techniques, and environmental legislation.

Although they represent a strategic and creative response to state bureaucracy and play a key role in sustaining a consumer market that values origin-based artisanal products, Cheese Workshops are frequently subjected to punitive actions by sanitary and environmental inspection agencies—particularly the State Inspection Service (Adeal) and the Brazilian Institute of Environment and Renewable Natural Resources (Ibama). Backed by legal regulations, these agencies often issue citations and order the closure of Cheese Workshops due to non-compliance with existing legislation. While such regulations serve important public health and environmental purposes, they fail to consider the specific characteristics of family agri-food industry and the quality standards attributed by consumers to the products processed in these establishments.

The use of unregulated artisanal production standards places Cheese Workshops under ongoing scrutiny from inspection authorities. A free online search on Google revealed that the topic “cheese workshops in *Alagoas*” was covered by local and state media at least 38 times between 2016 and 2024. Of the articles published across news websites, public agency portals, and media outlets, 63.16% focused on sanitary and fiscal inspections, 18.42% addressed regulatory efforts, 10.53% highlighted innovation incentives, and 7.89% emphasized their economic relevance (Figure 03).

Figure 03 – Alagoas: topics reported by news media on cheese workshops, 2020-2025



Source: Google LLC (2025). Compiled by the authors (2025).

The primary citations issued during the research period stemmed from operations

conducted by the Preventive and Integrated Inspection Services (FPI) of the São Francisco River, coordinated by the Public Prosecutor's Office of the State of *Alagoas* (MPE/AL). These actions are intended to identify and assess environmental damage within the São Francisco River Basin. The inspections involved representatives from multiple state and federal agencies, including Adeal, which is responsible for the agricultural and sanitary oversight of animal-based products. The inspection cases referenced in Figure 3 were based on the prescriptive method—a procedure which, as explained by Silveira and Heinz (2005), involves the laboratory analysis of product samples collected during audits to evaluate sanitary quality control.

The reports indicate that inspection actions targeting Cheese Workshops have resulted in interventions and punitive measures that have disrupted the continued operation of these establishments. The most recent complaints regarding non-compliance are related to infrastructure deficiencies, improper use of utensils, and, in specific instances, milk contamination with *Salmonella* bacteria and adulteration of dairy products. From the perspective of legality and ethical responsibility, this study concurs with Wilkinson and Mior (1999), who assert that there can be no justification for the informal sector when its efforts are focused on circumventing laws and regulations for personal gain. However, building on the broader discussion proposed by these authors, it is essential to emphasize the ambiguities and contradictions present in institutional policies that directly impact this sector. In such contexts, bureaucracy and lack of access to capital may lead to tax evasion, while insufficient guidance, limited knowledge, and inadequate technical assistance may contribute to sanitary violations.

According to producers, punitive measures often take precedence over educational guidance during inspections conducted by regulatory authorities. This concern was previously raised by Prezzoto (2005) and Silveira and Heinz (2005) in their analyses of inspection practices applied to family agri-food industries. When guidance and training processes are absent or insufficient, the likelihood of non-compliance and the persistence of inadequate practices in informal activities increases. In light of these discussions, this study advocates for a shift in the role of auditing agents toward that of educators, emphasizing problem-solving guidance over punitive enforcement.

With respect to artisanal production practices, a particularly relevant issue is the use of raw milk in the production of *queijo coalho*—a topic previously addressed by Cruz (2012). According to Ordinance No. 146, dated March 7, 1996, cheese made from raw milk that

have not undergone pasteurization³ or an equivalent thermal process must be subjected to a minimum maturation period of 60 days in an environment with temperatures above 5°C (Brazil, 1996). Cruz and Menasche (2014) argue that this requirement is rooted in U.S. sanitary regulations for animal-based products established in the 1940s, which were subsequently criticized by segments of the scientific community for the arbitrariness and lack of scientific precision in adopting the 60-day maturation period as a universal standard for product safety.

The commercialization criteria established under Ordinance No. 146, dated March 7, 1996, are misaligned with the production dynamics of *queijo coalho* in the Dairy-Producing Region. This misalignment is due to the reduction in maturation periods, driven by growing consumer demand and the emergence of new quality standards that favor fresh cheese⁴. It is also important to note that even if traditional maturation practices were maintained, compliance with the ordinance would remain unfeasible, as the aging process historically rarely exceeded eight days.

Normative Instruction No. 57, dated December 15, 2011—subsequently revoked by Normative Instruction No. 30, dated August 7, 2013—both issued by the Ministry of Agriculture, Livestock and Food Supply (Mapa), represent key regulatory instruments that intensified the debate over the production of raw milk cheese. This debate was especially fueled by the provision outlined in Article 1, which states:

To permit traditionally produced artisanal cheese made from raw milk to undergo a maturation period of less than sixty (60) days, provided that technical and scientific studies demonstrate that the reduced maturation period does not compromise the product's quality and safety (Brasil, 2013).

While advancements in legislation are acknowledged, they remain limited in scope. The debate over the production of raw milk cheese represents only one dimension of the broader set of challenges that continue to hinder the regulation of artisanal cheese production and commercialization (Cruz, 2012; 2020). Compounding these challenges are

³ Ordoñez et al. (2005) describe two forms of pasteurization: the slow method, used for small volumes of milk, in which the raw material must be heated to a temperature between 62 and 65°C for 30 minutes; and the fast method, currently the most widely employed, in which processing occurs at temperatures between 71 and 75°C for 15 seconds, followed by rapid cooling. In summary, these procedures are intended to eliminate microorganisms responsible for the alteration and deterioration of milk.

⁴ In the past, when *queijo coalho* held only use value, it underwent an artisanal maturation process lasting between 5 and 8 days. However, with the growing demand for the product and its transformation into a commodity with exchange value, greater appreciation has been given to white, fresh cheese, which matures for no more than 48 hours and is subsequently preserved through refrigeration.

the potential impacts that regulatory frameworks may have on transforming or eroding the traditional knowledge embedded in these practices.

At the state level, owners of Cheese Workshops had been anticipating the enactment of Law No. 8,228, dated January 7, 2020, which governs the production and commercialization of artisanal dairy products classified under the categories of tradition and innovation. Within its legal framework, the law defines “artisanal cheese as that made from milk—whether fresh, raw, or subjected to simple thermal treatment—produced using traditional methods and characterized by cultural, regional, or territorial attributes” (Alagoas, 2020).

Given the recent enactment of the law, its impacts are still uncertain; however, it is widely regarded as a significant advancement, as it addresses key dimensions of agri-food activities. Noteworthy within its provisions are the distinction between artisanal and industrial production, the recognition of the economic relevance of the activity, and the defined role of the state public administration—particularly in supporting production and commercialization, facilitating access to financing and sanitary compliance, and promoting training, innovation, research, and technological development. The law also underscores the recognition of artisanal cheese and other dairy products as cultural and heritage assets.

State Law No. 8,228/2020 is aligned with Federal Law No. 13,680, dated June 14, 2018⁵, which, for the first time, established guidelines for the inspection of foods of animal origin produced using artisanal methods. Cruz (2020) highlights the innovative nature of the regulation associated with this federal law, as it specifically addresses artisanal production and introduces the concept of the *Selo Arte* (Artisanal Seal). This seal is intended to promote the recognition and commercialization of artisanal dairy products across the national territory.

During the field research conducted between 2019 and 2021, artisanal cheese producers who demonstrated interest in engaging with the regulatory framework established by the *Selo Arte* initiative (Law No. 13,680/2018) were identified. However, in follow-up empirical investigations conducted in 2024, it was found that no establishment within the Dairy-Producing Territory had obtained the certification. The lack of a state-level political strategy to support producers in implementing adequate manufacturing practices and adapting establishments to meet sanitary requirements has hindered the regulation of

⁵ This legislation amends Law No. 1,283 of December 18, 1950. Although it was revised by Decree No. 9,013 of 2017, and subsequently amended by Decree No. 10,468 of August 18, 2020, the reforms left virtually unchanged the distinctions between industrial and artisanal production with respect to sanitary regulations.

production units in accordance with the provisions of the *Selo Arte* Law (Brazil, 2018).

With respect to State Law No. 8,228/2020, the legislation establishes regulatory criteria that rely on relatively bureaucratic mechanisms, requiring Cheese Workshop owners to invest in the structural adaptation of their facilities. In the absence of accessible credit lines and financial support, there is a significant risk that small-scale agri-food units may be excluded from the formal regulatory process. This concern echoes earlier discussions by Silveira and Heinz (2005), who contend that aligning family agri-food industries with legal regulations demands considerable financial investment in order to meet compliance requirements.

From this perspective, it becomes evident that the legal requirements are misaligned with the expectations and financial capacity of rural producers. The small scale of production and limited working capital render significant investments unfeasible. What is initially framed as an inclusionary process through sanitary compliance may, in practice, operate as a mechanism of exclusion for small farmers, ultimately benefiting large agri-food industry enterprises. In this context, without tangible institutional and public support, the frameworks established by Federal Law No. 13,680/2018 and State Law No. 8,228/2020 risk producing adverse effects for the sustainability of Cheese Workshops. Consequently, insights derived from the Dairy-Producing Territory context enable the systematization and assessment of both the advantages and challenges associated with the development and consolidation of these production units (Table 04).

Table 04 – Dairy-Producing Territory (*Alagoas*): advantages and challenges related to the continuity of cheese workshops, 2019-2024

Advantages	Challenges
Quality grounded in reliability, origin, identity value, and artisanal characteristics of the products	Informality of activities and the predominance of the prescriptive method in determining food sanitary quality
Dynamic local and regional markets	Competitiveness exerted by conventional industrial dairy plants
Openness to productive innovation processes	Insufficient infrastructure and limited access to financing policies
Preservation of artisanal techniques and valorization of traditional knowledge	Misalignment between current legislation and artisanal production practices

Source: Field Research (2019-2024). Compiled by the authors (2025).

The misalignment between the operational practices of Cheese Workshops and the legal regulations governing the production of animal-based products constitutes the primary barrier to the sustainability of these production units. Beyond the adverse effects of punitive

interventions by inspection agencies, the informal status of these establishments leaves them particularly vulnerable to the predatory competition exerted by large industrial dairy corporations.

Despite these challenges, Cheese Workshops play a vital role, particularly in cheese production and commercialization. As such, artisanal practices should not be viewed as inherently incompatible with productive specialization. It is entirely feasible to adopt innovative processes while preserving the intergenerational knowledge embedded in dairy production. This approach does not diminish the perceived quality of the products made in Cheese Workshops. On the contrary, the continued use of artisanal methods serves as a strategic market response to the growing consolidation of consumer segments that value products distinguished by origin, identity, and artisanal nature.

4 FINAL CONSIDERATIONS

The artisanal production of dairy products is a historically rooted activity in the semi-arid region of *Alagoas*. Once considered secondary due to the economic dominance of beef cattle farming until the mid-20th century, this activity has gradually become integrated into local and regional circuits of production, commercialization, and consumption. This shift can be attributed to several interrelated factors: (1) the preservation of a food culture centered around the shared consumption of artisanal cheese; (2) the development of proximity networks that facilitate the transmission of knowledge, skills, and techniques related to food processing; (3) increased demand fueled by urban population growth; and (4) the organization and systematization of practices within agri-food production establishments.

The work performed in Cheese Workshops is grounded in the integration of artisanal dairy-handling techniques with productive innovation processes. This dynamic has contributed to an increase in processing capacity and the adoption of new agri-food practices. While traditional dairy products remain the most in demand, these establishments have diversified their production portfolios by incorporating additional ingredients into the making of *queijo coalho*. On the one hand, experiences of technical specialization emerge as adaptations to meet the requirements imposed by sanitary inspection agencies; on the other, the development of new cheese varieties is promoted by institutional networks as a strategy for product diversification and the attraction of new consumer segments.

Despite the continued operation of Cheese Workshops, their owners face significant challenges stemming from the lack of formal regulatory recognition of their activities. State



Law No. 8,228/2020 of *Alagoas*, which aligns with the *Selo Arte* initiative, represents a noteworthy legal advancement by acknowledging the organoleptic qualities, traditional know-how, and cultural significance inherent in the artisanal production of animal-based food. However, the law also requires establishments to comply with specific sanitary and operational standards—a process that often entails financial investments beyond the reach of many producers. Therefore, it is crucial to promote local governance through the implementation of policies that are attuned to the socioeconomic realities of the territory. Initiatives targeting the Dairy-Producing Territory must account for the diversity of actors engaged in production and support the development of an institutional framework focused on the recognition and promotion of foods produced through artisanal methods.

The central challenge, therefore, lies in the need to align artisanal production methods and innovation processes with sanitary requirements, without compromising traditional knowledge. According to both producers and consumers, such knowledge is essential for preserving the craftsmanship involved in production, which in turn safeguards the symbolic value and distinctive organoleptic characteristics of dairy products. Achieving this balance requires revisions to existing legislation and regulatory frameworks governing the inspection of animal-based products, particularly those produced through artisanal methods.

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