

Artisanal food production in rural Argentina: Finding solace in cheese tourism?*

Gabriela Magri-Harsich^a, Francesc Fusté-Forné^{b,*}, Carlos Fernandes^c, Dolors Vidal-Casellas^d

^a University of Girona, Spain

^b Department of Business, University of Girona, Spain

^c Polytechnique Institute of Viana do Castelo, Portugal

^d Faculty of Tourism, University of Girona, Spain

ARTICLE INFO

Keywords:

Argentina
Cheese tourism
Gastronomy
Heritage
Local development
Rural tourism

ABSTRACT

The Argentine countryside shows a strong identity link between rural products and income factors for peasant families. Artisanal cheese is a manifestation of identity in the region Campos, Ríos y Lagunas in Buenos Aires, where the visitors attracted by regional products are increasing in the context of rural tourism. The objective of this article is to analyse the development of entrepreneurship projects of gastronomic products based on the production of cheeses in the region and the relationships between cheese and tourism from the perspective of the producers. Departing from interviews with ten producers from the region conducted in 2022 and a content analysis of the responses, the results show the cultural and economic role of dairy production, the know-how of the producers through the agrotechnical school of the area and the opportunity of the Argentine countryside to participate in food tourism through cheese. The paper reveals the challenges and opportunities that exists regarding the process of awarding tourism value to cheese for the local development, the empowerment of rural producers and the synergies between public and private stakeholders.

1. Introduction

Food tourism refers to the discovery of places through food, contributes to regional development and influences travel decisions (Rachão et al., 2019). Food tourism's supply encompasses a diverse range of contributors. Local producers, including farmers, fishermen and winemakers, and chefs, form the foundation of food tourism, offering authentic, regionally-sourced products and culinary expertise (see, for example, Batat, 2021). Venues such as food markets (Crespi-Vallbona and Dimitrovski, 2017) and restaurants (Fusté-Forné and Noguera-Juncà, 2023) showcase a region's culinary identity. In addition, food tours (Carvalho et al., 2023) and cooking classes (Yiğit, 2022) provide hands-on, educational experiences for visitors, while food and beverage events protect and promote local traditions (Park and Widayanta, 2022). These experiences connect producers and consumers, with the source of the products (Berno et al., 2022).

While the study of the relationships between food and tourism date back to the eighties of the twentieth century (see Belisle, 1983), the

boom in food tourism studies started with the beginning of the twenty-first century (Hjalager and Richards, 2002; Hall and Sharples, 2003; Long, 2004). This progressively opened a window towards the analysis of niche forms of food tourism (see Novelli, 2005) as an avenue to provide a more robust understanding of food tourism systems through specific products. Wine tourism is the most relevant example (Hall et al., 2009), which has been consolidated over the last decades (see, for example, Dixit, 2022) as a foundation to the development of the relations between culture and tourism (Charters et al., 2022).

In this sense, researchers also started to pay attention to other food and drink products to develop the bridges between food and tourism, such as artichokes (Fusté-Forné, 2022), olive oil (Pulido-Fernández et al., 2019) or tea (Jolliffe, 2007), to name some examples. In this context, cheese has also emerged as a tourism typology (see Ren, 2011; Sidali et al., 2015) with connections to established forms of tourism, such as rural tourism, where rural areas became prominent in cheese tourism planning and development (Fusté-Forné and Mundet i Cerdan, 2021). As we develop in the next section, the novelty of the research lies

* Open Access funding provided thanks to the CRUE-CSIC agreement with Elsevier.

* Corresponding author.

E-mail addresses: gmagriharsich@gmail.com (G. Magri-Harsich), francesc.fusteforne@udg.edu (F. Fusté-Forné), cfernandes@estg.ipvc.pt (C. Fernandes), dolors.vidal@udg.edu (D. Vidal-Casellas).

<https://doi.org/10.1016/j.ijgfs.2024.100888>

Received 26 September 2023; Received in revised form 25 January 2024; Accepted 4 February 2024

Available online 7 February 2024

1878-450X/© 2024 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

on the study of the relations between cheese and tourism in rural Argentina, an underrepresented area in previous research, in order to make a contribution to literature from a production perspective.

2. The linkages between cheese and tourism

Cheese tourism is defined as the process of awarding tourism value to cheese, which, according to previous research, “involves visiting areas of cheese making and milk production. [...] That is, cheese tourism comes from the concern with the process of developing a product closely linked to a territory, and drift towards a typology that includes not only the tourist visit to the craft workshop, but also a set of synergies from complementary food consumption and leisure” (Fusté-Forné, 2015, p. 91). Previous studies have particularly focused on the role of cheese in tourism through events, such as the cheese fair in the Spanish town of Trujillo (Folgado-Fernández et al., 2019) or the cheese market in the Dutch town of Gouda (Fusté-Forné, 2020a). The relevance of cheese is also analysed from the perspective of routes (Folgado-Fernández et al., 2017), with a bunch of studies that paid attention to the sustainable relevance of cheese as a tourism resource (see, for example, Ermolaev et al., 2019). In this context, Fusté-Forné (2020b) analysed the role of food markets to explore the relationship between cheese consumption and place identity, and he identified the origin of the product as a crucial attribute to develop a food destination through cheese. Latest research has also revealed the potential of sensory characteristics of local cheese to engage visitors with this form of tourism (Stošić et al., 2023).

While previous research is rapidly increasing, few studies have been focused on the linkages between cheese and tourism in Latin America. Among them, the study of Medeiros, da Cunha and Passador (2018) explores artisanal cheese production and consumption in Brazil. Also, Thomé et al. (2015) have revealed the tourism potential of cheese in Mexico. Later, Lejavitzer et al. (2022) have analysed the gastro-tourism intersections of Colonia cheese in Uruguay with a multidisciplinary dialogue between the biochemical, historical and heritage intersections of cheese production and consumption in the country.

In this sense, previous research shows that the case of Argentina is underrepresented. More than a decade ago, Navarro and Schlüter (2010) suggested food tourism as an avenue towards development of rural areas in Argentina, a call followed by other authors, such as Troncoso and Arzeno (2019), who observed the role of food tourism in the protection and promotion of local foods and recipes. Argentina is the second cheese producer in Latin America, after Brazil, and the internal market is the most relevant in terms of consumption (Ministry of Economy of Argentina, 2022). However, to the authors' knowledge, cheese has not been central to food tourism research and only Lacoste (2017) highlighted the cheese culture in the country based on a mountain cheese elaborated in the Tucuman province.

In line with previous research that has analysed cheese production for gastronomy and tourism development (see Čaušević and Hrelja, 2020; Fusté-Forné, 2023), this paper contributes to the study of the relationships between cheese and tourism from a production perspective to analyse the development of entrepreneurship projects of gastronomic

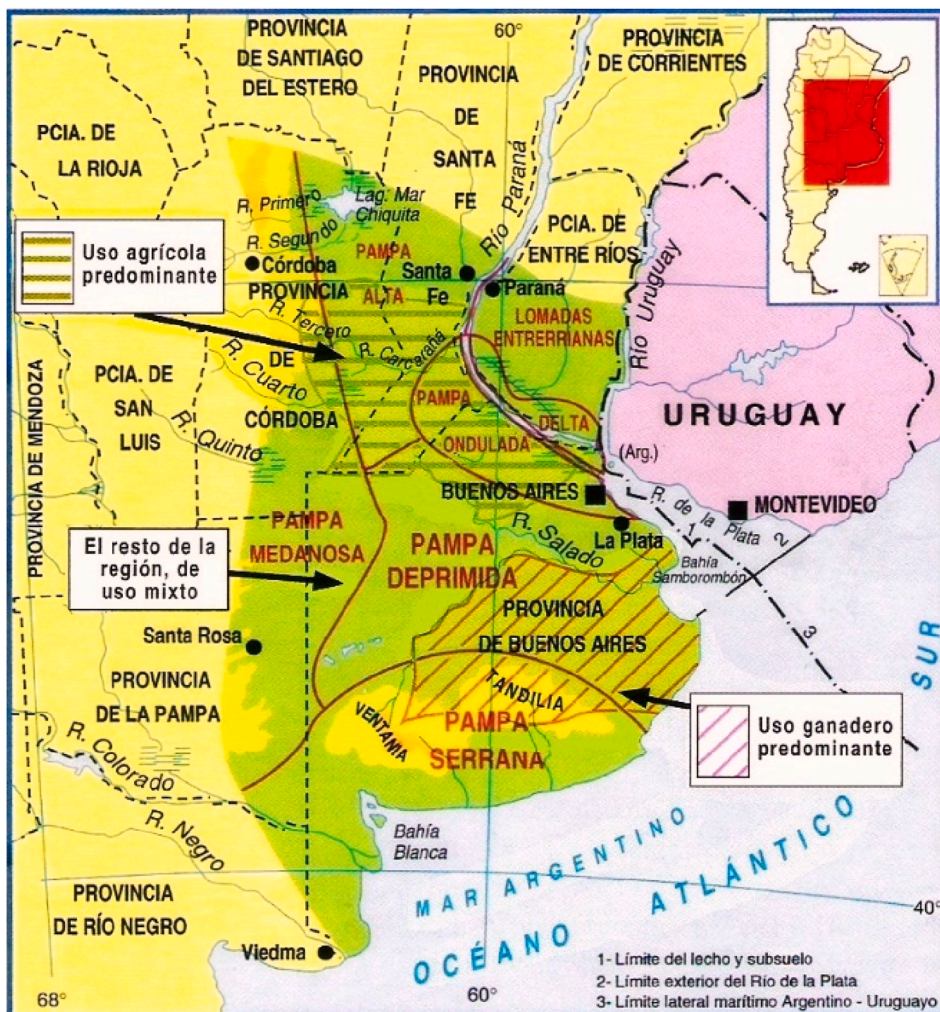


Fig. 1. Region of Pampa Húmeda (Oreomunnea, 2016).

products in the Campos, Ríos y Lagunas Region of the Cuenca del Río Salado, in the Province of Buenos Aires, Argentina. This paper adds texture to the conversations about the process of awarding tourism value in Latin America, and makes a unique contribution based on cheese production in rural Argentina.

3. Materials and methods

3.1. Study site

This qualitative study examines the case of the Buenos Aires area of the Salado basin in Argentina through interviews with producers. The selection of the area (Fig. 1) is based on its recent emergence as a growing region in nature and rural tourism, where the driving forces behind tourism are the gastronomic producers, who also act as hosts. The six chosen municipalities are part of the region, and each of them hosts a gastronomic festival that encourages visitors to come to the towns, thus promoting tourism. These municipalities are Roque Pérez, Tapalqué, Lobos, General Alvear, 25 de Mayo, and Saladillo. Also, the close proximity to the Autonomous City of Buenos Aires and the accessibility of National Route 205 provide the region with greater visibility and an influx of tourists.

In relation to cheese production and consumption, the Argentine Food Code (Decree No. 111, 12.1.76, art. 605) states as a definition of cheese, “the fresh or matured product obtained by separating the whey from milk or reconstituted milk – whole, partially or completely skimmed - coagulated by the action of rennet and/or specific enzymes. It may be complemented with specific bacteria or organic acids and may include coloring substances, spices, or seasonings”. According to Argentina’s National Institute of Statistics and Censuses (INDEC, 2023), the latest study from September 2023 by the Ministry of Agriculture, Livestock and Fisheries of Argentina (2023), shows that the growth of cheese production in the last years. In addition, the government has initiated a program called ‘Impulso Tambero’ to assist small dairy farms in the context of the economic crisis in the country which shows that this sector is crucial for rural development.

3.2. Study sample

The qualitative design based on interviews allows the participants to express their perspectives on the topic, and in line with previous research (see Longhurst, 2009; Scanlan, 2020), allows the researchers to understand the objective of the research, the relationships between cheese and tourism. The producers were selected based on the database maintained by the tourism boards of each participating municipality in the region, which were accessed in person by the first researcher. Also, word-of-mouth among producers led to even more participants, including a list of producers beyond those already recorded by the municipalities, through a snowball sampling method. This preparation process took place between March and June of 2022, involving visits from the first researcher to each tourism office, municipality by municipality, to inquire about the producers in each locality and town, which allowed to create the database of the producers.

While tourism boards maintain a database where, to include the names, personal information, and location of the producers, they also invite the producers to participate in municipal events for the sale of their products, the number of existing producers per municipality is larger because some of them are not included in the official lists. The study included all the universe of producers, a total of seventy-one producers, including families, individuals, and cooperatives. All the producers were approached by the first researcher and sixteen of them produce cheese. In Roque Pérez, there are three cheese producers; in Tapalqué, there are two cooperatives; in General Alvear, there are seven, including one production carried out within Unit 14 of the Buenos Aires Penitentiary Service; and in 25 de Mayo, there are four producers. All the producers were invited to participate and ten producers, who have

agreed to take part in the project, constitute the study sample.

The average experience among these producers is 25 years, The majority of them stated that the income from cheese sales constitutes their main source of revenue. For only one producer, cheese making is a supplementary activity as they are retired and their pension serves as their primary income. The farms in the study area are based on family agriculture as a form of subsistence. The type of cheese they produce is the characteristic Argentine rural cheese called Chubut and Goya. The name Chubut for the cheese comes from the Welsh community settled in the Patagonia region in the southern part of the country. Both names are derived from cities in Argentina. The cheeses have a compact, semi-hard outer layer, or soft texture and are matured for no more than 20–25 days. In Argentina, soft cheese is referred to as mantecoso due to its texture and is used as a seasoning ingredient in many dishes. It is also important to note that the economic and social challenges of family agriculture do not allow for an extended period of maturation process as farmers need to sell short term in order to generate income to maintain a reasonable quality of life.

The necessity to improve production has been a special unifying attribute for the realization of effective cooperation. For example, cooperatives, equipped with more advanced technology, produce gouda, mozzarella, reggiano, and spiced cheeses. The production process involves collecting fresh milk, pasteurizing it at 65 °C for half an hour, then cooling it to approximately 39 °C. Calcium chloride is added and left to act for 10–15 min. Enzymes are then added to stop the bacterial process, followed by the addition of rennet. After approximately 30 min, the coagulation process begins (changing from liquid to solid state). The curd is placed in molds, which can be either 1-kg molds or smaller ones for individual sales. Cheese is pressed (some producers sell by the kilo and find it convenient to coagulate in larger molds for later subdivision). One of the cooperatives also adds spices such as chili, oregano and pepper to obtain flavored cheeses.

3.3. Data collection

Data collection took place between the months of June and November 2022 and was carried out directly in the mentioned towns through semi structured interviews. The interview protocol was developed by the research team, based on previous research, and included four blocks of questions: a) to understand the background of the producers and the business; b) the planning and development of production and distribution processes; c) the commercialization of the products and the demand; and d) the current and potential relationships with tourism. The ten producers (Table 1) are interviewed by the first researcher and the average duration of the interviews was 45 min. Eight cheese producers were selected along with two cooperatives, which have sales outlet in Tapalqué.

3.4. Data analysis

The data analysis was conducted using a content analysis. A content analysis is useful to add texture to the understanding of specific aspects

Table 1
Profile of cheese producers (own source).

Business type	Municipality
Individual producer	Roque Pérez
Cooperative	Tapalqué
Family business	General Alvear
Individual producer	General Alvear
Family business	General Alvear
Individual producer	25 de Mayo
Individual producer	General Alvear
Individual producer	General Alvear
Cooperative	Tapalqué
Family business	25 de Mayo

of tourism that have not received attention by previous research (see [Yousuf and Backer, 2015](#)), based on the organization and codification of data (see [Guthrie et al., 2004](#)), also from interviews ([Noguer-Juncà et al., 2021](#)). The content analysis is appropriate when exploring individual perceptions in order to identify the themes that are derived from the interviews ([Yan et al., 2022](#)). The analysis was conducted by the first researcher, the themes were identified together with the second researcher and checked later for consistency with the research team. The process enabled the identification of the current situation and the potential relationships between cheese production and tourist consumption.

4. Contextualisation of the case study

Argentina is a livestock-oriented country, with this aspect particularly evident in the province of Buenos Aires. In the region known as the famous Pampa Húmeda, the prevailing landscape is characterized by expansive fields that are ideal for raising cattle, goats, and pigs. This suitability is attributed to the specific soil type present, the fertility of the land that provides ample sustenance for the animals, and the flat terrain, which represents a balanced environment facilitating the smooth movement of livestock ([Arbeletche, 2013](#)).

This phenomenon is not observed in the Puna region, in the north of the country or in Patagonia, where due to mountainous terrain, goats and llamas are found. These animals possess adaptations such as agile claws that facilitate climbing. Thanks to the climate and soil conditions, the province of Buenos Aires stands out as the primary dairy-producing zone in the Republic of Argentina ([Gutman and Rios, 2010](#)). This paved the way for the inauguration of La Martona in 1889 in the Cañuelas area. It was the country's first dairy industry and supplied dairy products to the entire province, neighboring provinces, and the Autonomous City of Buenos Aires.

In [Fig. 2](#) we observe one of the 'tambos' of La Martona. Tambos is the term used in Argentina to refer to dairy farms or dairy facilities where the production and processing of milk take place. These facilities are an essential part of the dairy production chain and play a crucial role in obtaining and processing fresh milk that is later used for the manufacturing of dairy products such as cheese. These facilities are typically located in rural areas and play a fundamental role in dairy production and in supplying raw materials for the broader dairy industry.

The reason why La Martona was established next to the Vicente Casares train station in the Cañuelas district was not coincidental. The fields in the area were conducive to cattle rearing, and the railroad routes, extending all the way to the factory's depot, were designed to transport dairy products and milk to the city. As depicted in [Fig. 3](#), the train carriages were equipped with refrigeration, an innovation of the



Fig. 2. An example of dairy facilities of La Martona ([Stephens, 1918](#)).



Fig. 3. The unloading of milk cans from La Martona in 1890 ([Opinando San Nicolás, 2020](#)).

time ([Simari, 2022](#)).

Another significant detail, which was also not coincidental, was the presence of the Don Bosco Salesian Agrotechnical School in Uribelarrea, Cañuelas. This renowned school provided excellence in education and offered a crucial opportunity for local residents to learn the agricultural activities specific to the region. From early childhood to secondary school, students could receive instruction in agricultural techniques, nurturing skills that would later facilitate their integration into the dairy industry.

Up to the present day, in the year 2023, the school continues to operate and teaches the unique character to the area (see [Fig. 4](#)). In earlier times, in order to make education accessible to a wider range of children, the school was public. This approach also enabled children from other parts of the province to study in Uribelarrea. The educational impact of the Agrotechnical School have not only contributed to the knowledge of successive generations but it has also solidified the connection between education and the dairy industry.

The Campos, Ríos y Lagunas region encompasses six neighboring municipalities of Cañuelas, as listed in the method section, which has made education for its residents pivotal in establishing cheese and other



Fig. 4. Entrance to the sales section of the school (own source).

dairy producers today. The short distance between them, spanning just a few kilometers, allowed easy access to the Don Bosco Agrotechnical School, which became a necessary and valuable tool for dairy production. The synergy between the know-how and the livestock took place within the same territory.

La Martona ceased operations in 1978, mainly due to economic difficulties, and was acquired by Mastellone Hnos, La Serenísima, through a judicial auction. This closure coincided with a sorrowful period in Argentina's history, the military dictatorship. José Alfredo Martínez de Hoz, the Minister of Economy under the military junta, implemented an economic plan that led to the bankruptcy of several factories. In 1989, on the 100th anniversary of its foundation, the Argentine Chamber of Deputies declared Cañuelas as the "National Cradle of the Dairy Industry".

Furthermore, a new standard of production was established in the country: milk had to be pasteurized, filtered, controlled, and classified, requirements that the factory could not meet. Martínez de Hoz and Videla introduced the new regulations for the authorization and operation of dairy establishments under Decree 2.687, issued in Buenos Aires on September 5, 1977.

5. Results

Based on the data analysis, results are presented in four sections that discuss the cheese production as an agricultural activity, the development of marketing and sales techniques, the challenges of a sustainable relationship between cheese production and consumption, and the development of cheese tourism.

5.1. The cheese production as an agricultural activity

Half of the producers engage in individual production, while two of them produce cooperatively, and three others operate as family units. Family agriculture offers a platform for a close cooperation between family members, and generations, as one of the producers stated, "together we take care of the cows, make cheese, and move forward". In relation to the cooperatives, they also contribute to the economic sustainability of the producers, as one of them explained, "it offers us an economic support to sustain our families". One cooperative is named Las Totoras in Tapalqué (Fig. 5), and the other is Séptimo Varón (Fig. 6), which has a sales point in Tapalqué and a production factory in Buenos Aires City. The Las Totoras Cooperative is also involved in UTEP, the Union of Workers in the Popular Economy. This Argentinian union represents and defends the rights of all those excluded from the job market, individuals who create their own work to subsist. It is an independent labor organization, unaffiliated with any political parties, serving as a tool for advocacy in the restoration of labor and social rights



Fig. 5. Crushed tomato and Gouda cheese, production by Las Totoras Cooperative, Tapalqué (Cooperative Las Totoras, 2023).



Fig. 6. Dairy products from Séptimo Varón Cooperative, sales point in Tapalqué (Cooperative Séptimo Varón, 2023).

that were stripped away by neoliberalism and are yet to be regained. In addition, this cooperative produces processed meats.

Three of the producers also manufacture cold cuts, tomato sauce, sweetened milk, and preserves. These products complement the revenue of the cheese sales. The preserves are crafted from their fruit trees, the tomato sauce from the plants in their gardens, and the cold cuts—specifically cooked ham—from their own pigs.

A variety of cheeses are offered, including hard, soft, herb-infused, oregano-flavored, reggianito, and mozzarella. The diversification of these cheese types is influenced by the seasonality inherent in their production. The coagulation and whey extraction processes vary in duration. Also, the aging process allows the cheese to develop its flavor, aromas, consistency, and shape (see, for example, Fig. 7). In several cases, the cheeses are flavored and they can feature black pepper, oregano, or fine herbs. While some cheeses are internationally styled, the producers did not mention drawing inspiration from other cheeses during the interviews, nor are they well-acquainted with the history of international cheeses.

One of the interviewed producers belongs to Unit 14 of the General Alvear Penitentiary (Fig. 8). In 2019, the tambo, both the dairy farm and cheese factory, including the production of ricotta, was reopened with the labor of the prisoners. It is a dairy establishment that oversees the



Fig. 7. Cheeses from La Bonita, Saladillo, Buenos Aires (own source).



Fig. 8. Dairy Farm (tambo) at Unit 14 of General Alvear Prison (own source).

entire production process, from feeding the livestock to cheese-making, and has recently acquired new tools to increase production. The products are available at a local store in the town, where they manage to sell the cheeses, and they also participate in local fairs, as explained below. One of the fairs they take part in is the Mercado Bonaerense fair and the Unisabores community fairs.

5.2. The development of marketing and sales techniques

All producers apply a 100% profit margin to their costs and state that the final consumer prices vary according to the country's economic situation, bearing in mind that Argentina experienced an inflation rate of 94.8% in the year 2022. This constant cost fluctuation for production poses a challenge to the relationship between cheese production and consumption. Due to the ongoing inflation, producers find it difficult to estimate their raw material purchases or sales for a commercial year. Furthermore, they explain that they can rarely innovate with new cheese types as it generates uncertainty, and their investment capacity is almost non-existent.

Only three of them, including the cooperatives, indicate that they apply prices using marketing techniques or economic knowledge. The rest do so 'by eye', expressing a desire to learn and educate themselves on the subject to execute it in the most professional way possible. Cooperatives display their prices through store signage and advertise through social media platforms such as Facebook or Instagram. Although social media activity holds great potential for enhancing the tourism-related attribution process, most price information is conveyed through signs or orally at local fairs and events.

While cooperatives have bank accounts, allowing payment with credit or debit cards, the others accept cash payments in Argentine pesos or through the Mercado Pago app. "We cannot accept payments with a bank card because we do not have bank accounts, we only have a Mercado Pago account that allows us to receive payments through mobile transactions, but only from locals". This is a virtual account accessible exclusively via mobile phones. Nonetheless, international tourists are excluded from this payment method and they must use cash. For domestic tourists, the Mercado Pago payment method is viable as they can use it through their mobile phones. The issue lies with the scarcity of foreign tourists visiting the rural Campos, Ríos y Lagunas region of the Buenos Aires province. They necessarily need Argentine pesos, as the app cannot be used on their phones, which is linked to an Argentine bank account.

Only two of the producers do not participate in fairs and do not rely on them for product sales. They state they do not produce enough to bring to fairs and sell. The rest attribute 50% of their sales to fairs and

events, while two producers solely sell 100% of their cheese at fairs and events. The producers show a strong commitment to deliver the products to the customers. For example, "we take orders via WhatsApp and deliver them by bicycle. The best part is when there are fairs, as we can sell much more on site". They do not use any other sales channels. Furthermore, seven of them offer tastings to potential customers; three do not provide tasting but consider it as a future promotional activity. One of them mentions having very little quantity of cheese to offer it 'for free'. They do not view it as a way to promote their products and generate potential sales. The other two do not participate in fairs or events.

Likewise, the 80% of the producers stated that customers perceive their product as local and kilometer zero, and recognize it as a regional identity product from the Cuenca del Salado. The linkage between gastronomic tourism and the region is significant, as when thinking of rural, local, and nature-based tourism close to Buenos Aires City, the Campos, Ríos y Lagunas Region stands out. Moreover, it is important to highlight the relevance of the Don Bosco School for the region, as explained earlier in the paper. Beyond providing education and professionalization to the producers, it serves as a tourist attraction. The school remains open on weekends, allowing tourists to access it, learn about the products, and discover that other towns also produce cheese, *dulce de leche*, and other dairy products. In this way, the producers feel a territorial connection and a sense of belonging, which is proudly manifested in the interviews.

5.3. The challenges of a sustainable relationship between cheese production and consumption

The majority of the producers acknowledge that customers understand the seasonality of production. The spring and summer seasons, with higher calf births, increased milk production from cows, and a greater quantity of raw materials for cheese-making, experience the highest demand.

However, one of the issues that arise is the lack of financial training to apply accurate percentages and ensure profitability, as it is also pointed in the previous section. Some producers understand their cheese production costs but are uncertain about the appropriate selling price. This uncertainty stems from the fact that 70% of them lack economic and financial education. While local municipalities offer support, it is limited to courses in hygienic food handling and does not teach them how to determine profit margins, reach break-even points, or achieve logical profitability based on their investments. The results indicate a need for collaboration between public administrations and the creation of synergies among producers. This could involve sharing experiences related to consumer acceptance and perception of the product, allowing them to translate the product's value into a monetary price.

Opinions on potential solutions to the raised issues vary: stabilizing raw material prices, reducing tax and union pressures, state investment through the creation of national and popular markets, access to low-interest loans, and improving production techniques. In this sense, a participant stated that "if we could obtain loans to expand our working space or acquire machines that would help us produce more, it would be ideal". All the interviewees express an interest in improving the country's economic stability, which would benefit everyone, including the entire society. Regarding why some producers are more successful than others, they attribute it to efficient resource utilization, product quality, longer years in the industry, access to better costs, or greater investment capacity.

In this sense, an efficient resource utilization often stems from technical training or improved production tools, as one of the producers explained, "I would like to undergo training in new production technologies or different types of cheese-making processes". Quality differentiation can result from the use of superior raw materials, which customers appreciate through taste and texture. The producers' experience over time contributes to better techniques, as does their

relationship with the sector, which can lead to better cost prices for raw materials. Investment is another key factor; having initial capital enables the purchase of better machinery, tools, and equipment, guaranteeing higher production standards. In contrast, some producers continue to produce cheese solely through manual methods.

In addition, the majority of the cheese producers are interested in receiving education and training regarding production. The most relevant topics for them (Fig. 9) include knowledge of economics, market integration, advertising and marketing, finances, information about dairy production, sales improvement courses, credit application, and sales skills. When asked about important conditions for receiving visitors at their production sites, many stated they lack space and need better facilities to accommodate visitors, greater regional promotion, and improved accessibility or expanded transportation options to receive more visitors in the region.

Cooperatives offer weekend visits and showcase their production areas, allowing visitors to learn about the cheese-making process. Only four producers stated they would receive visitors on weekends, while the rest, if equipped as previously mentioned, would do so at any time. While receiving tourists is an opportunity to showcase the cheese-making process, generate potential sales, and increase revenue, it is also a potential threat as some tourists might question the simplicity or basic conditions of the production site, which could affect their confidence in the product. Responses regarding the use of cheese in local restaurants varied. Some mentioned that local products are respected for their seasonal and local origins. Others noted that some restaurants prioritize cheaper cheeses regardless of origin, while some simply admitted not being informed on the matter.

As for reasons limiting their ability to start their own businesses, three mentioned having such limitations – the two cooperatives and the Unit 14 prison facility. The others cited taxation as the main hindrance. High taxes for starting a business create a barrier. Regarding government bureaucracy, producers mentioned requirements for permits: the store must meet certain size and infrastructure standards, and refrigeration and equipment must comply with certain standards. Another challenge is the lack of raw materials for cheese production. Some producers are not able to maintain sufficient inventory and have trouble producing enough to participate in fairs, and even to keep products

available for sale in their stores. The lack of financial incentives is another obstacle; with low incomes, they struggle to secure low-interest bank loans. Inadequate technical skills for large-scale production and a lack of technical training and production equipment make establishing a storefront difficult.

Half of the participants consider that the state supports them as part of the productive sector, while the other 50% believe that the assistance provided is insufficient or non-existent. Local governments and municipalities offer limited support through courses like food handling, but it falls short when it comes to launching such productions. More knowledge is required, and producers explained that municipalities often do not offer it. While municipalities support fair setups and gastronomic events, producers claim that the assistance is minimal or lacking. They would appreciate greater state support to execute their projects and achieve their goals.

In all cases, it was mentioned that they do not face international competition with other types of cheeses, but rather with domestic industrialized cheeses found in supermarket aisles. This is due to the fact that the selling prices for industrialized cheeses are more competitive, that is, cheaper. The customers they sell to are mostly Argentinian, from the region, or visitors from nearby areas within 100 km or from the Buenos Aires Autonomous City.

5.4. The development of cheese tourism

Based on the previous section and in relation to tourism, all the interviewees are in favor of the tourism development in the region. They believe that this approach promotes local products, provides awareness for products beyond the region, supports cooperatives, increases visibility for producers, fosters local development and regional consumption, and indirectly improves their quality of life by facilitating better sales. The positive outlook expressed by all interviewees regarding tourism development in their region underscores the multifaceted benefits that tourism can bring to local communities. Their unanimous support for tourism development is grounded in a belief that it serves as a catalyst for various aspects of their lives and the region's overall prosperity. This sentiment is echoed across different dimensions, including economic, cultural, and environmental aspects.

A key aspect highlighted by the interviewees is the promotion of local products. Tourism serves as a platform to showcase and market their goods, bringing wider attention to their crafts and specialties. This increased visibility not only boosts sales but also instills a sense of pride in their products and traditions. Moreover, the support for cooperatives reflects the collaborative spirit within the community, as tourism initiatives often encourage producers to work together for mutual benefit. Almost all producers consider their craft to be an integral part of their lives. The role of education in the local artisanal industry is also significant. In this sense, 7 of them learned cheese and cured meat production at the Cañuelas Agrotechnical School, while 3 are self-taught. This diversity in learning experiences underscores the importance of preserving traditional knowledge and skills within the community. It also highlights the adaptability and resourcefulness of local artisans, which is crucial to face the present and future challenges in tourism planning and development.

They express a unanimous and positive opinion about the ongoing tourism development in the region by local governments. Everyone believes it is crucial for the local population to be involved in decisions related to tourism planning and development. This inclusive approach not only considers economic factors but also takes into account the preservation of culture and the environment. It empowers the community to contribute ideas, fostering a sense of ownership and responsibility, contributing to the regional development, and feeling heard and integrated.

Out of all the producers, 2 of them feel that they did not have the opportunity to influence decisions made regarding the tourism sector in the region, whereas 8 mention that their opinions were taken into



Fig. 9. Factors to improve cheese production and its relationship with cheese consumption (own source).

account. While the majority of producers feel that their opinions are valued and taken into account, the voices of a minority go unheard. This discrepancy underscores the need for continued efforts to ensure that all stakeholders have a say in tourism-related decisions. They participate in community meetings where the municipality seeks their input on how to support the sale of their products, leading to the creation of local fairs in each town. “Each event allows us to showcase our products, establish social and commercial connections, and build a social network between the customers and us”, explained one of the participants. This is seen as an encouraging sign, as the producers feel that the local governments listen to them. Also, the invitation of producers to gastronomic festivals in the region also comes from the local government and tourism entities of the municipality. The planning and execution of these festivals are overseen by the tourism department. Producers appreciate being consulted and they are provided with free stands at these events. While the need for more actions is mentioned, this contributes to diversify its marketing strategies and increase its competitiveness through tourism.

In conclusion, the interviewees’ perspectives show that it is clear that tourism has the potential to be a driving force for regional development. This contributes to improve the relationship between cheese production and consumption (Fig. 10). However, it is essential for local governments and communities to work together, ensuring that all voices are heard and that initiatives are designed to benefit the stakeholders. With continued collaboration and innovation, tourism can further diversify marketing strategies and enhance competitiveness while fostering a stronger sense of community and cultural identity. The region’s commitment to cheese tourism is often reflected in the organization of cheese-related events and festivals.

The events that generate tourism for the region differ between those organized by the producers themselves and others in collaboration with public entities. In Roque Pérez, the event organized by the producers is the Pizza Festival (held at the old train station lent by the municipality). Also, they host the Criollo stew festival, the Night of the General Stores, and the Empanada Festival organized by the tourism board. In Tapalqué, the municipality organizes the Black Bull Festival, and on Sundays, producers organize a local food fair to sell their products. General Alvear, with the assistance of the municipality, organizes the Malt Biscuit Festival, featuring a type of biscuit typical for mate pairing, and during the town’s anniversary, a food fair is held with traditional Argentine barbecue. In 25 de Mayo, the Carnivals take place in February, an event where food producers organize a fair to sell products. Furthermore, the producers also show the need to organize a festival based on cheese. “I would appreciate it if a cheese festival could be held in our region. Sometimes, we feel overlooked because we are not as well-known as Tandil in the province of Buenos Aires”, reported one of the participants.

The events celebrate the art of cheese-making and provide an excellent platform for producers to showcase their products and gain exposure, demonstrating a willingness on the part of local governments and tourism entities to engage with and support the artisanal community. The development of cheese tourism, as indicated by the interviewees’ positive opinions, plays a pivotal role in the region’s tourism strategy and the livelihoods of local cheese producers. This niche form of food tourism combines culture and rural life, providing visitors with a unique experience centered around cheese production.

Cheese tourism fosters an appreciation for the craft and encourages the purchase of these artisanal cheeses. The results show that cheese tourism promotes the consumption of local products. Visitors often purchase cheese as souvenirs, and the increased demand helps boost sales for local producers. Cheese tourism does not only benefit local producers but also enriches the overall tourism experience in the region. Tourists have the opportunity to interact with local cheese producers directly. It fosters a deeper connection between tourists and the local culture, supports the preservation of traditional practices, and contributes to the economic sustainability of the community. As cheese tourism continues to grow, it has the potential to become a unique attraction that draws visitors seeking culturally enriching experiences where they learn about traditional cheese-making techniques.

6. Conclusions

This paper explores the development of entrepreneurship projects of gastronomic products based on the production of cheeses in the Campos, Ríos y Lagunas region, in Argentina, from the perspective of the producers. Based on the significance of artisanal cheese production as an identity marker of the region, the research emphasizes the potential of tourism development to promote local products, boost the local economy, and enhance the quality of life for producers. The paper also highlights the need for governmental support to fully realize these opportunities through agricultural management and marketing. Results show that collaborative efforts among local stakeholders, such as accommodation owners and restaurants, can further promote local cheeses, while addressing challenges related to accessibility. Moreover, the study highlights the significance of knowledge transfer from agro-technical schools to rural entrepreneurs and emphasizes the role of local communities in shaping and promoting food tourism. These findings add texture to discussions on local product valorization and the intertwining of traditional practices with modern tourism trends.

As the research shows, cheese tourism encompasses diverse experiences such as farm visits, cheese tastings and food events, which shape a niche form of tourism that also connects with other typologies of tourism, such as rural tourism. Cheese tourism also fosters a sustainable

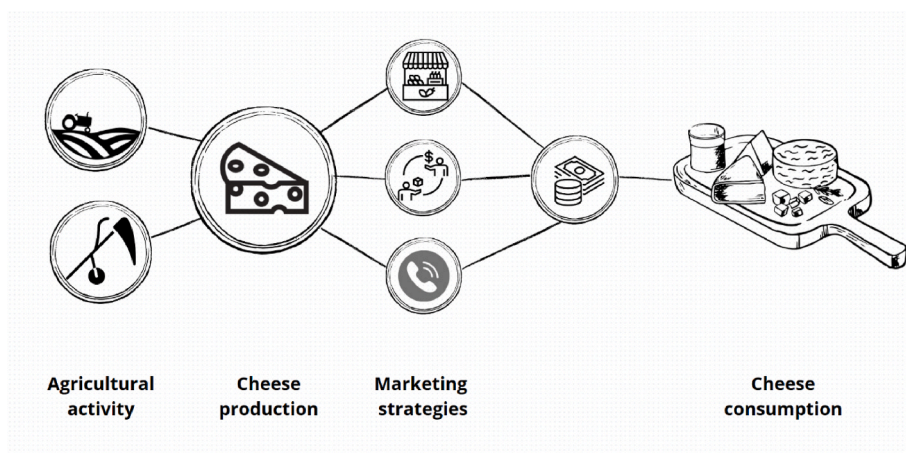


Fig. 10. The relationship between cheese production and consumption (own source).

development through the connections between producers and visitors, and the culinary heritage of a region as a source of cultural tourism. The development of cheese tourism contributes to slow experiences (see, for example, [Fusté-Forné and Jamal, 2020](#)) and regenerative tourism ([Hussain, 2021](#)), which should be developed in future research.

The territorial context also influences the research, due to the connection with the cultural elements that protect and promote the identity of rural Argentina. In the case of cheese tourism, the region's history and cheese varieties, production methods, and cultural practices shape the nature of the relations between cheese and tourism. The significance of place identity as a source of territorial connotation in cheese tourism lies in the opportunity to showcase not only the diversity of cheese cultures, but also to engage producers and consumers in a deeper connection that contributes to the appeal of cheese tourism destinations. This includes the traditions that develop the cultural, as well as tourism, significance of cheese production in rural communities and provide evidence on how cheese tourism contributes to the economy of rural Argentina. This paper highlights the importance of the region's cheese-making heritage as an integral part of its economic, environmental and social landscape.

6.1. Theoretical and practical implications

From a theoretical perspective, this paper contributes to the understanding of cheese tourism in the context of the sustainable relationships between primary and tertiary sectors, where the development of rural areas increasingly relies on the valorization of food heritages and traditions. The research highlights how artisanal cheese production serves as a cultural and economic asset, fostering local identity and regional distinctiveness. While the concept of cheese tourism has been largely investigated in recent years, a scarce focus on Argentina makes this research one of the first to analyse this niche form of tourism in the country. This also expands the study of cheese tourism in Latin America from the perspective of the cheese makers, acknowledging the situation and challenges that both research and practice of the topic face and anticipating lines for future research, explored below.

From a practical perspective, this research allows for the recognition of cultural and food heritage of the Campos, Ríos y Lagunas Region through artisanal cheeses. Given the nature of the region, it could be feasible to plan a cheese tour where each producer offers visits to their production areas and tambos. For producers, this idea could provide greater visibility to their economic activities, highlighting cheese tourism in the area. These tours could be offered year-round, as the region increasingly relies on proximity and natural tourism as part of their rural development.

For local managers, this paper also presents an opportunity to boost food tourism through cheese. Owners of local businesses, also accommodations, could include cheeses as part of their menus. Local restaurants use local cheeses, but often without acknowledging the producers. By identifying the producers on their menus and mentioning their regional location, greater awareness and a new sales channel could be created. Promoting tourism involves revealing the heart of the province of Buenos Aires, its heritage, way of life, and the cheese-making process, which can then be consumed by visitors as souvenirs or featured in local menus. Local stakeholders could also consider organizing a cheese fair. While there is already a provincial cheese festival in Tandil, Buenos Aires, a regional fair could be proposed. Each producer could be geolocated to include them on a regional map. Tourism directors could prioritize actions that showcase the artisanal cheese producers in the region. This could include implementing signage, featuring them on official websites, and providing information about who they are and the types of cheeses they produce.

6.2. Limitations and future research

One of the most significant limitations of this paper was accessibility

to the producers. This relates to the challenges posed by dirt roads, which become impassable during rainy periods. No vehicle can reach the homes of the producers under such conditions, and, as a participant explained, they deliver the products by bicycle. Furthermore, entry to Penitentiary Number 14 was impossible due to security and bureaucratic reasons. Moreover, this prison is for men, and the research was conducted by a woman with no family connections to any of the prisoners. As a result, the only contact obtained was through the individual who was permitted to be interviewed. Another notable limitation is trustworthiness. Rural producers are individuals who are not easily open to strangers, inviting them into their homes, and showing them their production and processing areas. However, this did not prevent conducting interviews and showcasing their artisanal cheeses and the stories that surround the challenges of cheese production and consumption in the context of tourism.

This paper is limited to a sample of ten cheese producers, even though it represents the majority of cheese producers in the region. While future research could analyse the relationships between food and tourism from the perspectives of food producers to expand the implications of the study in the region, interviews to other stakeholders in cheese consumption, such as restaurants and other food retail outlets, would also contribute to a more accurate perception of the opportunities to improve cheese tourism.

In this sense, future research opportunities should aim to highlight the diversity of regional gastronomic products, explore their inclusion in tourism services, and demonstrate their potential for economic development in interior provinces. It is also important to shed light on lesser-explored rural areas and different ways of life compared to urban centers such as the capital city. Future investigations could delve into partnerships among producers as collaborative work and also explore projects between stakeholders. There is potential for expanding the geographic scope of the research to neighboring municipalities to learn about more regional cheese producers. Lastly, new research horizons are evident. On one hand, exploring how local governments offer support and interact with regional producers from their perspective, and on the other hand, understanding the acceptance and appreciation of visitors regarding this food product.

Implications for gastronomy

This research contributes to the understanding of the development of entrepreneurship projects of gastronomic products focused on the production of cheeses in Argentina. The study adds an innovative approach to the analysis of the relationships between cheese and tourism in a region which is not investigated in previous research. Departing from the study of the supply, this research shows the relevance of cheese production as an agricultural activity, the development of marketing and sales techniques, and the challenges of a sustainable relationship between cheese production and consumption, and how these factors inform the development of cheese tourism.

CRediT authorship contribution statement

Gabriela Magri-Harsich: Conceptualization, Data curation, Methodology, Writing – original draft, Formal analysis. **Francesc Fusté-Forné:** Conceptualization, Writing – original draft, Writing – review & editing, Formal analysis, Visualization. **Carlos Fernandes:** Conceptualization, Methodology, Supervision, Writing – review & editing. **Dolores Vidal-Casellas:** Conceptualization, Supervision, Writing – review & editing.

Declaration of competing interest

The authors declare that there is no conflict of interest.

Data availability

Data is contained within the article.

References

- Arbeletche, P., 2013. *Ganadería Familiar Y Transformaciones Territoriales*. Universidad de Buenos Aires.
- Batat, W., 2021. The role of luxury gastronomy in culinary tourism: an ethnographic study of Michelin-Starred restaurants in France. *Int. J. Tourism Res.* 23 (2), 150–163.
- Belisle, F.J., 1983. Tourism and food production in the Caribbean. *Ann. Tourism Res.* 10 (4), 497–513.
- Berno, T., Rajalingam, G., Miranda, A.I., Ximenes, J., 2022. Promoting sustainable tourism futures in Timor-Leste by creating synergies between food, place and people. *J. Sustain. Tourism* 30 (2–3), 500–514.
- Carvalho, M., Kastenholz, E., Carneiro, M.J., Souza, L., 2023. Co-creation of food tourism experiences: tourists' perspectives of a Lisbon food tour. *Tour. Stud.*, 14687976231168941
- Čaušević, A., Hrelja, E., 2020. Importance of cheese production in Livno and Vlačić for gastronomy and tourism development in Bosnia and Herzegovina. In: Peštek, A., Kukanja, M., Renko, S. (Eds.), *Gastronomy for Tourism Development: Potential of the Western Balkans*. Emerald.
- Charters, S., Demossier, M., Dutton, J., Harding, G., Maguire, J.S., Marks, D., Unwin, T. (Eds.), 2022. *The Routledge Handbook of Wine and Culture*. Routledge.
- Crespi-Vallbona, M., Dimitrovski, D., 2017. Food markets from a local dimension—La Boqueria (Barcelona, Spain). *Cities* 70, 32–39.
- Dixit, S.K., 2022. *Routledge Handbook of Wine Tourism*. Routledge.
- Ermolaev, V.A., Yashalova, N.N., Ruban, D.A., 2019. Cheese as a tourism resource in Russia: the first report and relevance to sustainability. *Sustainability* 11 (19), 5520.
- Folgado-Fernández, J.A., Di-Clemente, E., Hernández-Mogollón, J.M., 2019. Food festivals and the development of sustainable destinations. The case of the cheese fair in Trujillo (Spain). *Sustainability* 11 (10), 2922.
- Folgado-Fernández, J.A., Palos-Sánchez, P.R., Campón-Cerro, A.M., Hernández-Mogollón, J.M., 2017. Gastronomic products with identity and the development of the tourism destination. A study on cheese routes in Spain. *International Journal of Scientific Management and Tourism* 3 (1), 93–109.
- Fusté Forné, F., 2015. Cheese tourism in a world heritage site: Vall de Boí (Catalan Pyrenees). *European Journal of Tourism Research* 11, 87–101.
- Fusté-Forné, F., 2020a. Say Gouda, say cheese: travel narratives of a food identity. *Int. J. Gastron. Food Sci.* 22, 100252.
- Fusté-Forné, F., 2020b. Savouring place: cheese as a food tourism destination landmark. *J. Place Manag. Dev.* 13 (2), 177–194.
- Fusté-Forné, F., 2022. Culinary tourism: artichoke from land to table in Spain. In: *Handbook of Niche Tourism*. Edward Elgar Publishing, pp. 99–110.
- Fusté-Forné, F., 2023. La Rioja in a cheese. *Int. J. Rural Manag.* 19 (2), 319–329.
- Fusté-Forné, F., Jamal, T., 2020. Slow food tourism: an ethical microtrend for the Anthropocene. *J. Tourism Futur.* 6 (3), 227–232.
- Fusté-Forné, F., Mundet i Cerdan, L., 2021. A land of cheese: from food innovation to tourism development in rural Catalonia. *J. Tourism Cult. Change* 19 (2), 166–183.
- Fusté-Forné, F., Noguera-Juncà, E., 2023. Designing Michelin-starred menus from the perspective of chefs: is the presence of local food worth a trip? *Int. J. Food Des.* 1–17.
- Guthrie, J., Petty, R., Yongvanich, K., Ricceri, F., 2004. Using content analysis as a research method to inquire into intellectual capital reporting. *J. Intellect. Cap.* 5 (2), 282–293.
- Gutman, G., Rios, P., 2010. *Estudio sectorial lácteo de Argentina*. Centro de Estudios sobre Ciencia, Desarrollo y Educación Superior (Redes) - Centro de Formación para la Integración Regional (CEFIR).
- Hall, C.M., Sharples, L., 2003. The consumption of experiences or the experience of consumption? An introduction to the tourism of taste. In: Hall, C.M., Sharples, L., Mitchell, R., Macdonald, N., Cambourne, B. (Eds.), *Food Tourism Around the World. Development, Management and Markets*. Butterworth Heinemann.
- Hall, C.M., Johnson, G., Cambourne, B., Macdonald, N., Mitchell, R., Sharples, L., 2009. Wine tourism: an introduction. In: *Wine Tourism Around the World*. Routledge, pp. 1–23.
- Hjalager, A.M., Richards, G., 2002. *Tourism and Gastronomy*. Routledge.
- Hussain, A., 2021. A future of tourism industry: conscious travel, destination recovery and regenerative tourism. *Journal of Sustainability and Resilience* 1 (1).
- INDEC, 2023. Retrieved from. https://www.indec.gov.ar/ftp/cuadros/economia/epi_09_23.pdf.
- Jolliffe, L., 2007. *Tea and Tourism: Tourists, Traditions and Transformations*. Channel View Publications.
- Lacoste, P., 2017. El queso de Tafi del Valle y el despertar de la cultura del queso en Argentina. *IDESIA* 35 (1), 87–95.
- Lejavitz, A., Cozzano, S., Fusté-Forné, F., Sueiras, A., 2022. El queso colonia: tradición y transformación. *Intersecciones bioquímicas, históricas, patrimoniales y gastro-turísticas*. *RIVAR* 9 (27), 74–93.
- Long, L.M., 2004. *Culinary Tourism*. University Press of Kentucky.
- Longhurst, R., 2009. Interviews: in-depth, semi-structured. In: Kitchin, R., Thrift, N. (Eds.), *International Encyclopedia of Human Geography*. Elsevier, pp. 580–584.
- Medeiros, M.D.L., da Cunha, J.A.C., Passador, J.L., 2018. Gastronomic tourism and regional development: a study based on the minas artisanal cheese of Serro. *Caderno Virtual de Turismo* 18 (2), 168–189.
- Ministry of Agriculture, 2023. *Livestock and Fisheries of Argentina*. Retrieved from. <https://www.magyp.gov.ar/impulsotamboero>.
- Ministry of Economy of Argentina, 2022. Retrieved from. <https://www.argentina.gov.ar/economia>.
- Navarro, F., Schlüter, R., 2010. El turismo en los pueblos rurales de Argentina: ¿Es la gastronomía una opción de desarrollo? *Estud. Perspect. Tur.* 19 (6), 909–929.
- Noguera-Juncà, E., Crespi-Vallbona, M., Fusté-Forné, F., 2021. Sociocultural and gastronomic reevaluation of local products: trumfa in the Vall de Camprodon (Catalonia, Spain). *Int. J. Gastron. Food Sci.* 26, 100425.
- Novelli, M., 2005. *Niche Tourism: Contemporary Issues, Trends and Cases*. Routledge.
- Opinando San Nicolás, 2020. 1890 – Ferrocarril, descarga de tarros de leche “La Martona”. Retrieved from. <https://opinandosannicolas.ar/2020/07/1890-f-ferrocarril-descarga-de-tarros-de-leche-la-martona>.
- Oreomunnea, 2016. *La Pampa Húmeda*. Retrieved from. <https://smokecurtain.wordpress.com/2016/08/26/la-pampa-humeda>.
- Park, E., Widyanta, A., 2022. Food tourism experience and changing destination foodscape: an exploratory study of an emerging food destination. *Tourism Manag. Perspect.* 42, 100964.
- Pulido-Fernández, J.I., Casado-Montilla, J., Carrillo-Hidalgo, I., 2019. Introducing olive-oil tourism as a special interest tourism. *Heliyon* 5 (12).
- Rachão, S., Breda, Z., Fernandes, C., Joukes, V., 2019. Food tourism and regional development: A systematic literature review. *Eur. J. Tour. Res.* 21 (1), 33–49.
- Ren, C., 2011. Non-human agency, radical ontology and tourism realities. *Ann. Tourism Res.* 38 (3), 858–881.
- Scanlan, C.L., 2020. Preparing for the unanticipated: challenges in conducting semi-structured. In: *In-Depth Interviews*. SAGE.
- Sidali, K.L., Kastenholz, E., Bianchi, R., 2015. Food tourism, niche markets and products in rural tourism: combining the intimacy model and the experience economy as a rural development strategy. *J. Sustain. Tourism* 23 (8–9), 1179–1197.
- Simari, L.E., 2022. En la capital del país de las vacas. Desplazamientos materiales y simbólicos de la vida animal en la Buenos Aires de entresiglos (1871-1910). *Prism* 26 (1), 82–105.
- Stephens, H., 1918. Retrieved from. <https://www.infocanuelas.com/cultura-y-eventos/la-martona-segun-la-vision-de-un-viajero-frances>.
- Stošić, T., Šmugović, S., Ivanović, V., Kalenjuk, P.B., Stošić, T., 2023. Sensory characteristics of local cheese from the Pčinja district as a potential for gastro-tourist offers. *Turističko poslovanje* (31), 49–61.
- Thomé, H., Vizcarra, I., Espinoza, A., 2015. Performancia y fractalización como herramientas de metabolización de los espacios rurales. El caso de la Ruta del Queso y el Vino de Querétaro, vol. 6. *Spanish Journal of Rural Development*.
- Troncoso, C., Arzeno, M., 2019. Turismo gastronómico en el noroeste de la Argentina. Experiencias de recuperación de alimentos y preparaciones culinarias locales. In: Morales Betancourt, D., Leguizamón, M. (Eds.), *Debates contemporáneos sobre el turismo*. Tomo VII: turismo gastronómico: experiencias y análisis. Universidad Externado de Colombia.
- Yan, Q., Jiang, T., Zhou, S., Zhang, X., 2022. Exploring tourist interaction from user-generated content: topic analysis and content analysis. *J. Vacat. Mark.*, 13567667221135196
- Yiğit, S., 2022. Is it possible to get to know a culture through cooking classes? Tourists experiences of cooking classes in İstanbul. *Int. J. Gastron. Food Sci.* 28, 100527.
- Yousuf, M., Backer, E., 2015. A content analysis of Visiting Friends and Relatives (VFR) travel research. *J. Hospit. Tourism Manag.* 25, 1–10.