



State and entrepreneurs facing situations of crisis: conditions and possibilities for diversification of production in Mendoza (1901-1939)¹

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Abstract. The crises in Argentine winemaking during the first decades of the 20th century exposed its vulnerability, resulting from specialization in the cultivation of grape varieties for winemaking, susceptibility to pests and climatic contingencies, and a rigid supply that could not adapt to inelastic demand. These circumstances led to appraisals and a broad debate about the promotion of other production industries. The goal of this article is to describe the strengthening of diversification projects in Mendoza to complement winegrowing (the central activity) and offset the adverse effects of chronic raw material surpluses. This led to the emergence of new industries during the 1920s and their consolidation, thanks to the impetus provided by the domestic market, in the 1930s. This process was ultimately driven by fruit production, based on state promotion and regulation and the arrival of extra-regional (wholesale merchants) and foreign agents.

Keywords: Productive diversification; wine and wine making; fruit-culture; agriculture; Argentina.

1 Study conducted in the framework of CONICET's Proyecto de Investigación Plurianual (PIP) 2015-2017 "Agentes estatales, trabajadores y empresarios en las transformaciones políticas, económico-sociales y territoriales en la provincia de Mendoza entre el lenicnismo y los albores del peronismo" and the 2016-2018 Secretaría de Ciencia, Técnica y Posgrado (SECTYP) project "El Estado regulador durante la década de 1930: crisis vitivinícola, diversificación productiva, conocimiento técnico y obras de infraestructura," led by Rodolfo Richard-Jorba, PhD and Patricia Barrio, PhD, respectively. A preliminary version was presented at the II Reunión Tendencias y Debates en Historia Económica Argentina: Coyunturas de Crisis Económica desde la Perspectiva Regional-Provincial en la Argentina de los Siglos XIX a XXI, organized by the Asociación Argentina de Historia Económica (Universidad Nacional de Jujuy) in October 2017. The author is grateful for the comments provided at that event, and for those of *Apuntes'* anonymous reviewers.

Acronyms and initials used

BA&P	Buenos Aires and Pacific Railway (Ferrocarril Buenos Aires al Pacífico)
CONICET	National Council for Scientific and Technical Research (Consejo Nacional de Investigaciones Científicas y Técnicas)
MAN	Argentine Ministry of Agriculture (Ministerio de Agricultura de la Nación)
SADFA	Society of Argentine Fruit Distribution Agents (Sociedad de Agentes Distribuidores de Frutas Argentinas)

1. By way of introduction. The historiography of regional winegrowing crises

The study of the causes and consequences of the critical junctures in the province of Mendoza, at least until the first half of the 20th century, would appear to be inexorably linked to the winegrowing industry. Indeed, it is possible to associate specialization in producing grapes for table wine and dependence on the domestic market with reoccurring critical contexts (Barrio, 2010a, 2016; Coria López, 2014), compounded by adverse events – such as WWI – that depressed the demand for wine. In this framework, anticyclical state policies were not unequivocal in character in that they alternated promotion with regulation and intervention in an effort to attenuate the effects of these junctures, as has also been pointed out in the Spanish case with regard to the so-called post-*phylloxera* stage, which was affected by cyclical overproduction crises (Pan-Montojo, 2005). All the same, it is possible to discern some common objectives – for instance, to establish and stabilize the price of wine, improve its quality through controls to prevent its adulteration, and promote the formation of cooperatives (Olguín, 2014; Barrio, 2014). Moreover, sectoral entities were formed in these contexts, with varying degrees of influence over local authorities (Barrio 2010a, 2010b, 2016; Mateu, 2014).

The studies cited above highlight the state's responses during critical periods, centered on testing or implementing proposals – not always innovative – involving quality control of wine, initiatives to promote its consumption, the creation of cooperatives to eliminate middlemen between the producer and the consumer, and differentiation between small and large entrepreneurs as far as state assistance was concerned.

Part of the regional literature acknowledges that although public anti-crisis initiatives were supported by business associations, they turned a deaf ear to expert advice on incorporating improvements into the production process (Mateu, 2005; Mateu & Stein, 2006); this was a factor in the repeated occurrence of critical junctures. Other studies show that the assessments conducted in response to the 1901-1903 crisis betrayed a lack of technical criteria in winemaking, prompting an institutionalized process to generate and disseminate knowledge locally – later developing into the progressive incorporation of technical specialists by the state and the wineries, as technical directors in the latter case (Richard-Jorba & Rodríguez Vázquez, 2013). The relationship between technical knowledge and the production sector is evident in efforts to tackle industry vulnerability, and proposals presented by economists, agronomists, and oenologists to assure the full utilization of surplus raw materials. In particular, while heading the

Directorate of Industry, the Italian oenologist Arminio Galanti promoted various projects involving different forms of grape processing (Barrio & Rodríguez Vásquez, 2016). Later, as a result of the 1930 crisis, Alejandro Bunge advised on the formation of the Compañía Vitivinícola de Mendoza, which sought to overcome the imbalances between supply and demand; to complement this, the idea of making a range of grape-based products was resurrected (Mellado & Olgún, 2006).

With regard to the period analyzed here, several studies have centered on the role of the Wine Regulatory Board – created by National Law No. 12137 (1935) – during the critical years of the 1930s. Mateu (2005, 2014), and Ospital and Cerdá (2016) point to the power this body exercised by controlling supply and balancing it with consumption by setting minimum prices, with a view to regulating sales (and assuring producers of a degree of profitability) and purchases of wine – and later grapes.² The Wine Regulatory Board also promoted the grouping of producers who did not own wineries into cooperatives, so that they could process and market their harvest. Meanwhile, Ospital (2013) and Ospital and Cerdá (2016) note that the Board halted vineyard expansion through eradication as well as compensation for those producers who substituted *Vitis vinifera* varieties with table grapes or other crops, particularly fruits. Moreover, it imposed taxes on each hectare planted. Ospital (2013) argues that these mechanisms led automatically to the substitution of vineyards with fruit orchards, and charts the dynamism of regional fruit production starting from the 1930s. However, it is necessary to address the spatial evolution of cultivation to establish whether these mechanisms did indeed have an influence on productive characteristics of the province; that is, whether wine producers did in fact migrate, partially or en masse, to fruit and vegetable growing.

The profuse and valuable historiographical literature also touches on the implementation of diversification projects, and how these can be understood as a response to the critical junctures aimed at delineating, through variable degrees of planning, the path to follow once stability was recovered.³ Indeed, as an immediate consequence of these contexts, other forms of agricultural

2 Law 12355 provided for the purchase of 2 million quintals of grapes (1.3 million of these from Mendoza) from traditional winegrowing regions. In 1935, the state bought a total of 3,084,080 quintals of grapes, distributed across 45,648 hectares, in order to destroy them. This amounted to almost half of Mendoza's output, of which 86% pertained to producers without wineries and 50% to French varieties – 50% of it, in turn, from properties no bigger than five hectares.

3 In this regard, it is worth recalling the proposal of Carmona, Colomé, Pan-Montojo and Simpson (2001), who point to the changes forced upon Spanish winegrowing after the phylloxera crisis: adoption of new varieties as well as techniques for diversification of production and the mass restructuring of vineyards, although in this case viniferous varieties continued to be grown.

production were identified, coexisting with grape cultivation starting from the 1920s. The complementary status of the new crops is regarded as a weakness of these attempts at diversification.⁴ Still, the contributions of Cerutti (2015), Almaraz (2013), and Cerutti and Lorenzana Durán (2009) enrich the analysis of this process, arguing in the Mexican case that other agricultural and processing activities can coexist with a central, strategic industry, and that these complementary activities can generate multiplier effects by creating forward and backward linkages, extending irrigated areas under new crops, and incorporating new actors to add complexity to the production framework.

Given these antecedents, a number of questions can be asked. Which production industries stood out in the diversification program designed and implemented in Mendoza in the 1930s? In what way were these activities articulated with one another and with the main industry of winegrowing? As part of this process, was there a state plan at the time to boost and support producers who adopted the new proposals? Or, conversely, was all this just an accumulation of various cultivation initiatives based on local environmental potential and market opportunities? And, finally, to what extent did businesses and producers accept the state-led initiatives?

In one interpretation, during the 1920s and 1930s various agricultural production industries were discussed as a complement to winegrowing, in order to offset the adverse effects of chronic raw material surpluses. Indeed, new activities did emerge in the 1920s, and were strengthened the following decade in the context of the stimulus given to the domestic market.

To conclude this section, it is worth mentioning that studies acknowledge that the antecedents to alternative industries can be traced back to the origins of grape exportation, the technical changes introduced during the production and technical stages so that the raw material could reach its destination in optimal conditions after a lengthy journey; and to the beginnings of fruit production, first with a strong emphasis on marketing fresh produce (1920-1940) and then on canning (Oszlak, 1984; Martín, 1992; Rodríguez Vázquez, 2016). There has also been analysis of derivative industries – that is, those that use winemaking byproducts, or the grapes and wine themselves, in their production processes (the production of grape alcohol, liquors, and tartaric acid, for instance). These industries developed in response to the demands of modern capitalist winegrowing in the region,

4 Some studies stress that full agricultural diversification in Mendoza was not possible throughout the 20th century because it did not represent a valid alternative, in economic terms, to wine production (Olguín, 2014; Tacchini, 2018).

based on the experiences of certain immigrant entrepreneurs in controlling raw material surpluses and the consequent saturation of the wine market (Pérez Romagnoli, 2010). These contributions problematize the conception of regional economies as monocultural, highlight the existence of diversification efforts in response to critical contexts, and address entrepreneurial responses to the opportunities and demands of production conditions and the consumer market.

2. The appraisals that nourished the ideas about diversification of production (1914-1930)

The advent of the first winegrowing crisis of the 20th century (1901-1903) saw the emergence of some initiatives to promote new economic sectors – but, to be sure, these were proposals whose fulfillment was limited.

Later, after a winegrowing boom (1908-1912) was brought to an abrupt halt by another crisis (1914-1918), discussions were reopened about ways to use local produce. The press, business newsletters, and various public speeches identified and discussed the industry's weaknesses – specifically, the predominance of varieties for producing table wines and the difficulties in marketing increasing volumes of wine – and proposed possible solutions. Some of the many examples included the expansion of other crops to address the negative repercussions for links in the production chain – that is, small-scale producers, producers who did not own vineyards, and *bodegueros trasladistas*.⁵

However, these first appraisals were simplistic, associating the problems discussed with the economy's monocultural status while overlooking the multicausal determinants of the crises, including the quantitative orientation of the production model and resultant overproduction, the occurrence of practices such as adulteration of wine to “stretch it out,” and national market conditions (underconsumption, shortages, purchasing capacity). The consensually gloomy outlook regarding the winegrowing monoculture's impact on the local economy prompted “moderate” proposals to rejuvenate wine-based products and markets; one example was Governor Francisco Álvarez's plan to bring supply into line with ailing demand as a way out of the 1914-1918 crisis (Barrio, 2016). Other debates centered on production industries that would ensure the progressive diversification of local agriculture, with new crops complementing rather than overshadowing

5 Translator's note: *bodegueros trasladistas* are winemakers who sell their wine to other producers with greater productive capacity and/or better access to the distribution channels.

those already established. Thus by 1908, but with greater intensity in the 1920s, fruit and vegetable crops were being tested for domestic and foreign consumption.

As such, more than the planning or projection of a different economic course, there was a process of trial and error of various agroindustrial activities, driven by suitable environmental conditions, availability of roads, and interest in positioning the province as a supplier of inputs for other industries (for example, beets for sugar production, silk for the textile industry, and fruit and vegetables for canning), and fresh produce for the domestic market. Some of these activities were already practiced in the province, on an artisanal basis.

These discussions and projections regarding the province's economic and agricultural future gave rise to a tacit agreement about a form of diversification that would be feasible and sustainable over time, based on privileging fruit production under technical criteria to ensure more intensive production. It was hoped that fruit production would complement wine-growing,⁶ serving as an "escape route" during critical junctures affecting the province's economy, even though this did not involve the planning of any sort of far-reaching overhaul of production. Thus, we have identified a set of readings and appraisals about the production crises in the province, involving the testing of price-regulation mechanisms for wine and grapes, market intervention, and the formation of cooperatives while also promoting the expansion of subsidiary agricultural industries. This approach was pursued almost unaltered until the development of hydrocarbon exploitation toward the end of the 1930s. It is worth pointing out that this debate was in keeping with the nationwide diversification proposals of Alejandro Bunge (1940/1984, pp. 197-198), based on the idea of expanding the internal market by supplying local products and manufactured goods (Bacolla, 2008; González Bollo, 2004). These proposals were replicated in other provinces, such as La Rioja (Olivera, 2000, 2001) and Jujuy (Bernasconi & Fandos, 2015).⁷

6 *La Palabra* (March 20, 1918, pp. 2, 3).

7 As has been established, the high customs duties and local market growth created conditions in which consumer goods companies found it more cost effective to process their products close to their markets than to import them. One contemporary observer noted "the trend toward a greater share of the country's production in consumption, due to the constant diversification of local production and the development of manufacturing" (Bunge, 1940/1984, pp. 197-198). For an examination of Bunge's economic proposals, see González Bollo (2004), and Bacolla (2008); and on their repercussions for the Argentine interior, see: Olivera (2001), and Bernasconi and Fandos (2015).

2.1 How and what to diversify? From projection to the realization of proposed transformations

In 1918, the election of a radical Lencinist government⁸ in the province meant greater intervention in the economy – precipitating tense relations with the local bourgeoisie – as well as a focus on the weakest sectors in the production chain⁹ and some projects to promote economic autarky. In turn, special attention was paid to the promotion and development of fruit production, leading to the formation of a new business and agricultural sector. This context was conducive to fulfillment of the aforementioned agroindustrial diversification projects, alongside a relatively stable local economy, an increase in demand due to population growth and urbanization, and the dissemination of the trials conducted at the Buenos Aires and Pacific Railway (B&PR) experimental stations. Amid the multiple agroindustries that sprang up – fish farming; the production of silk, sugar beet, and hemp – the most prevalent industries at the time were grape and fruit production, as well as the exportation of the former and the processing of the latter. These activities attest to the start of a diversification process between the 1920s and the 1930s, as a consequence of, first, favorable conditions; and second, a series of local policies to promote and regulate the sector, in addition to national import substitution policies – responses to the impact of the 1929 crisis.

Different factors permit this interpretation. On the one hand, the institutional fragility and instability of the Lencinist leadership in Mendoza – marked by four federal interventions – dented the prospects of long-term policy application, despite the objectives expressed in the economic and agrarian policies of the three governors (José Néstor and Carlos Washington Lencinas, and Alejandro Orfila) in office between 1918 and 1928.

Later, during the period characterized by neoconservative governments

8 The government was led by José Néstor Lencinas (*cf.* Rodríguez, 1979; Lacoste, 1994). Richard-Jorba (2014) disputes the revolutionary character of *Lencinismo*, characterizing it as a reformist stage that mainly addressed social issues, the living conditions of low-income sectors, and the design of a more interventionist economic policy that hinted at greater autarky. Despite the institutional impossibility of its realization in full, this idea can be associated with the zeitgeist of the time, whereby the export orientation of Argentine agricultural production was debated in light of the depletion of the production frontier.

9 The economic policy of Lencinas was marked by strong intervention in price-fixing, in order to avoid depreciation in the price of grapes due to speculative maneuvers by winemakers. An analysis of the political and economic foundations of radical *Lencinismo* can be found in Olguín (1956), and a more recent study: Richard-Jorba (2014). Mateu and Iriart (2018) reflect on the proposals of “Lencinist activists” to remedy the imbalances of winegrowing during the interwar period. From the perspective of sociology, this economic policy was considered “an attempt to change the rules of the game of the oligarchy’s economic model, with two goals: to expel the winemaking oligarchy from economic scene and weaken the domination of the bourgeoisie” (Martín, 1992, p. 132) (translation by *Apuntes*).

in the province,¹⁰ some of these guidelines were revisited. Governor Ricardo Videla (1932), perhaps drawing on his expertise as an agricultural engineer and his trajectory as a technical advisor to BA&P, drafted various agro-industrial projects that were implemented and/or built upon during the governments that followed. These projects were reinforced by a national import-substitution policy for certain consumer goods – which, for the local case, had a marked regulatory character based on technical foundations – intended to make production competitive in consumer markets, domestic and to a lesser extent foreign, in line with health criteria and marketing standards. The design of this institutional infrastructure, neither unilateral nor passive, responded to a decisive increase in the marketing of fresh products following on from the full production of varieties grown in previous stages. It was thought that the incorporation of these criteria would result in an increase in the consumption of fresh fruit and the expansion of industries stemming from fruit production. Another approach associated with diversification was the promotion of “new” industries through tax exemptions and premiums for the establishment of factories that processed agricultural products (canning) and/or wine byproducts (grape alcohol, tartaric acid); supplied other industries (cement, paper); and/or upgraded to move beyond artisanal status (distilleries and preparation of dried fruits).

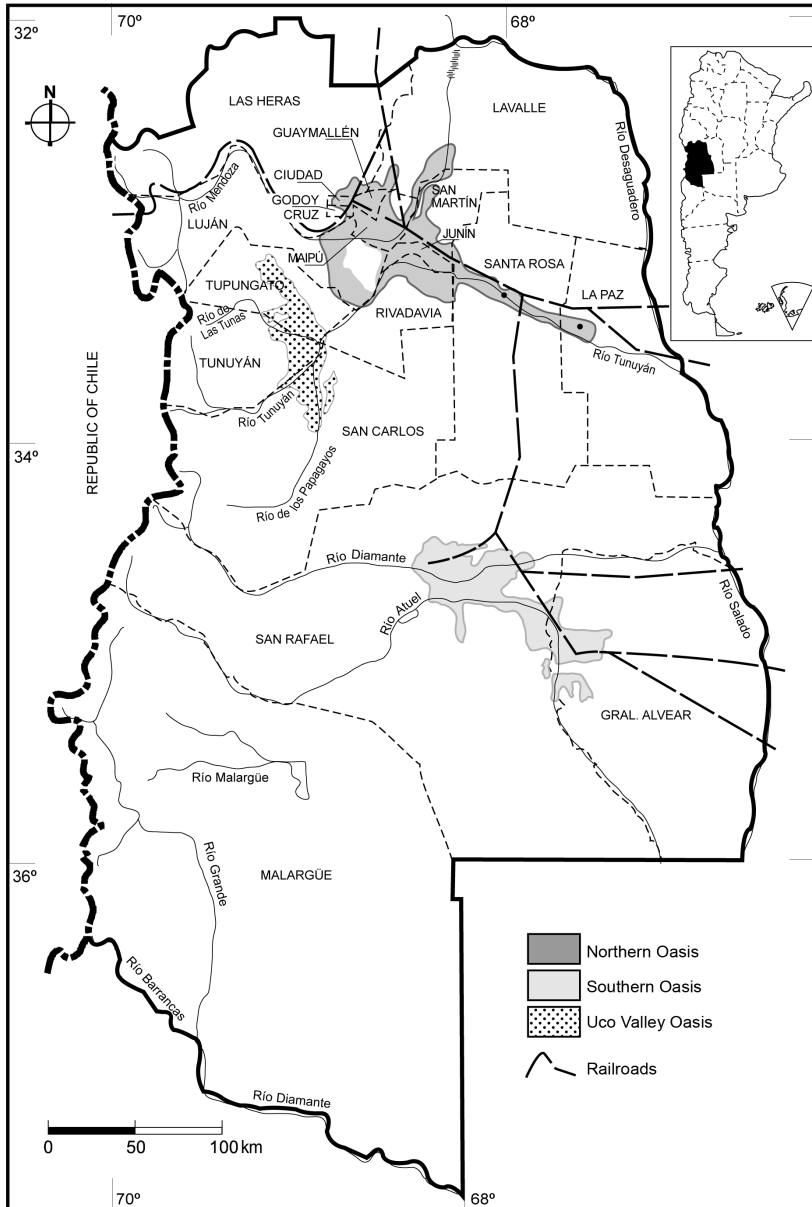
The efforts of the state allow for analysis of its role in the consolidation of an industry undergoing expansion (fruit production), adding complexity to the previous conception of a state centered exclusively on the implementation of anti-cyclical policies through regulation of winegrowing.

2.2 Production specialization: from wine monoculture to the expansion of fruit crops

The idea that the proposed diversification did not imply the substitution or abandonment of existing crops was corroborated by the spatial distribution of the new crops, and by the incorporation of spaces where agriculture had been a minor activity. To understand this process, it is important to recognize that the economy of Mendoza is structured around the province’s oases, in that the organization of economic and production activities is spatially determined by access to water (Map 1).

10 Ricardo Videla administration (1932-1935), succeeded by his Finance Minister Guillermo Cano (1935-1938), Rodolfo Corominas Segura (1938-1941), and then Adolfo Vicchi, who reverted back to the neoconservative cycle (1941-1943). Cano’s administration coincided with the implementation of the plans of the Wine Regulatory Board.

Figure 1
Map of productive oases and railroads in the province of Mendoza



Source: Drawing by Daniel Dueñas (Medios Audiovisuales y Gráficos, Centro Científico Tecnológico, Magraf-CCT (Conicet Mendoza)).

There are three large oases in the area: the Northern, irrigated by the Mendoza and Tunuyán rivers; the Central-Eastern, irrigated by the Tunuyán and other minor streams; and the Southern, by the Atuel and Diamante rivers. These three oases constitute three distinct systems with differing environmental conditions and levels of (progressively expanding) inter-connection. Indeed, variation in the availability of communication services and the expansion of the water network explain why the spaces developed in different ways, as has been noted with regard to other territories with similar environmental characteristics (Cerutti, 2010, 2015).

In this process of incorporating new lands and crops, the department of San Rafael (Southern Oasis) came to the fore as a hub of agroindustrial development, to the extent that it can be said to have spearheaded a second modernization of the local production matrix, driven initially by the expansion of fruit production and then its industrialization. Vineyards in this department did not cover a large area (Table 1, Figure 1). Starting in 1903, the two stations along the Argentine Great Western Railway directly connected the southern subregion with the Northern Oasis and the market in the Argentine Littoral; then, in 1908, the Central Western Railway bought land in Colonia Alvear, on the border with San Rafael, to extend the connection with Buenos Aires and other secondary lines. These rail connections were decisive for the positioning of the department, and the Southern subregion, as a hub of fruit and tomato production (to be marketed in the Argentine Littoral) in relation to the Northern Oasis. In 1925, of the nearly 5,700 hectares grown in the province, 35% were concentrated in the Southern subregion, followed by Rivadavia and Junín (Eastern subregion), with almost 1,216 hectares of fruit production characterized by high density and property subdivision.

Table 1

Area	1930		1935		1937	
	Fruit Orchards	Vineyards ⁽¹⁾	Fruit Orchards	Vineyards	Fruit Orchards	Vineyards
South (San Rafael and Alvear)	3,686	16,423	6,602	16,423	7,737	16,059
Core Area ⁽²⁾ (Guaymallén, Las Heras, Ciudad, Godoy Cruz, Luján and Maipú)	2,763	44,717	2,722	44,726	3,181	44,783
Near East (Junín, Rivadavia and San Martín)	2,378	25,118	3,482	25,165	4,429	24,666
Uco Valley (San Carlos, Tunuyán and Tupungato)	944	4,035	2,400	4,035	2,696	4,115
Far East (La Paz and Santa Rosa)	839	1,432	1,599	1,432	1,881	1,256
Total	10,610	91,725	16,805	91,781	19,924	90,879

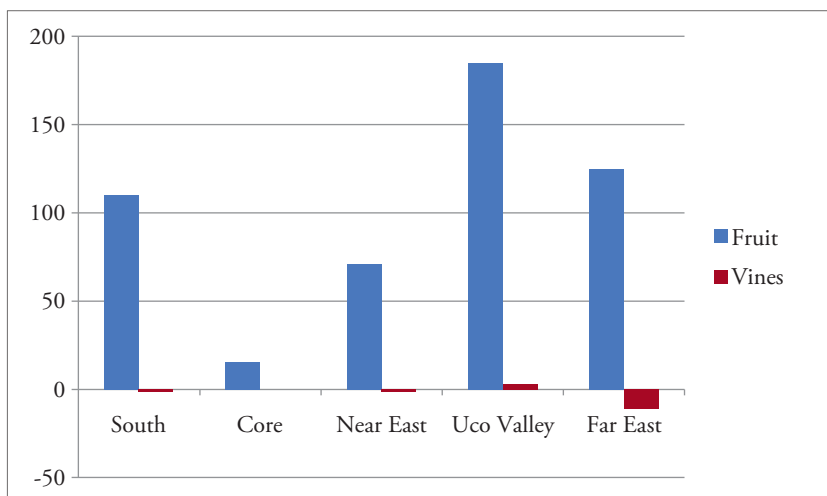
Notes

⁽¹⁾ Data available: 1933.

⁽²⁾ The name given to the departments that first placed most emphasis on modern capitalist wine-growing, before its expansion to the rest of the province.

Source: Dirección General de Estadísticas de la Provincia de Mendoza (1934, p. 145; 1935, p. 171; 1938).

Figure 2
Percentage evolution of the area planted with fruit trees and vines, Mendoza, 1930-1937



During the transitional stage of the 1920s, which was characterized by local economic stability, the greatest percentage increase in fruit crops was recorded in the Near East and Uco Valley areas, although in absolute terms, growth was led by San Rafael. The following decade was marked by a notable increase in volumes marketed and the ongoing expansion of the fruit production area in the Southern Oasis and Uco Valley; that is, areas where fruit production was not prioritized, which calls into question the association between clearing vines and replacing them with fruit trees.

In turn, poles specializing in fruit production emerged in the departments of Uco Valley (where until that point agriculture had been non-existent) and the Near East (in what constituted a restructuring process, probably given the presence of small-scale producers affected by earlier crises) at the same time as the decisive, uninterrupted dynamism of the South part of the province, spurred by the expansion of fruit crops in peripheral areas¹¹ (see Map 1 and, later on, Table 2). This is due to various factors: climatic and environmental conditions suited to growing fruit; availability of cultivable land at a lower cost than in the Northern Oasis; a water network conducive

11 BA&P technical reports and advice are unanimous in their support for creating zones specializing in certain varieties of fruit, based on environmental and economic criteria (*cf.* for example, *Revista Mensual BAP*, N° 175, June 1932). Adaptive trials at experimental farms and the creation of nurseries were led and supervised by BA&P technicians (such as Mario Estrada), who alternated these activities with visits to model fruit growing areas in the United States and Europe.

to irrigation; and direct rail links with consumer markets in the Littoral and Buenos Aires (Argentine Great Western and BA&P).

Moreover, these crops expanded precisely in areas where winegrowing was not a central activity, so the discourse about introducing new crops as a way out of the wine crisis either made no impact on the producers of the region, or else they kept their vineyards and acquired new plots on which to plant fruit trees. To date, scholars have identified not so much a “mass” migration to fruit production as some cases of capitalized industrial winemakers who added new lands with fruit orchards to their landholdings. Some even managed to integrate the entire production chain to a considerable degree.

We will now take a brief look at the direction of these initiatives and the “opportunities” they presented for entrepreneurs and producers to navigate critical junctures.

3. Forms of diversification in Mendoza. An attempt at periodization (1922-1939)

3.1 Moderate diversification: the exportation of table grapes (1922)

The proposal promoted from the early 1920s in the so-called Core Area for expansion of capitalist winegrowing (restricted to the departments of Godoy Cruz, Maipú, Guaymallén and Luján) did not imply a restructuring of the use of space for production but rather the cultivation of varieties that could withstand long journeys, since priority was given to exporting them abroad. This involved a certain “rupture” with the modern winegrowing model and its dual quantitative orientation: on the one hand, focusing efforts on producing high-quality, standardized grapes to meet consumer demands and conform to international health regulations and provisions; and on the other, steering the industry toward new markets (Rodríguez Vázquez, 2016). With regard to the latter, it meant sustaining the export trajectory of a regional economy dependent on the domestic market.

As well as the technical requirements – agricultural and phytosanitary – of this endeavor, availability of refrigeration technology and the formation of commercial networks proved decisive in consolidating these experiences over time and in ensuring that the optimistic sector forecasts were realized, above all because of the positive reception of the experimental shipments. These considerations meant that just one subsector of winegrowing entrepreneurs participated in the experience, “taking advantage of” prior knowledge, capital and pre-existing commercial links to supply a market (the United States) that opened out because of its restriction on grapes from Almeria in Spain. An example of such a trajectory is the outstanding wine

entrepreneur Pedro Benegas, son of Governor Tiburcio Benegas, who was an early pioneer (1907-1913) of new varieties and equipment. Benegas also possessed a trading house in Buenos Aires that assured him of direct links with exporters, allowing him to do away with middlemen while accessing preferential information about market conditions. This itinerary demonstrates how a firm that had traditionally supplied the domestic market with table and fine wine rethought its commercial strategy, allocating part of its resources to new sectors of the consumer market (for instance, growing high-quality grapes for the U.S. market) and securing control of practically all the links in the production-marketing chain.

In August 1928, the Society of Producers of Grapes for Export (*Sociedad de Productores de Uvas de Exportar*) was formed, in a strategy designed to achieve sector benefits on a corporate basis and, in turn, to set the organization apart from the National Winegrowing Center (*Centro Vitivinícola Nacional*),¹² which brought together the more heavily capitalized producers. Initially, this society sought to defend and promote the production and international trade in table grapes from the province; carry out inspection services abroad¹³ (a task that had previously fallen to BA&P delegates and Ministry of Agriculture technicians); and build a refrigeration facility,¹⁴ ultimately completed in 1931 in the city of Mendoza. Although the incorporation of this technology was very costly, it was vital in solving the problem of conserving a product that was highly perishable¹⁵ while access to the area of production represented a competitive advantage for the province that had not been extended to other fruit-growing areas. However, the facility's capacity was not sufficient to cover the growing demand for the service.

Despite the promising forecasts for the industry, the crisis of 1929 hit the main buyer of table grapes, the United States, and expectations plummeted. Moreover, the industry was affected by the low availability of ships during WWII. The decrease of trading in this field explains why one entrepreneur,

12 Entities with similar aims were founded in San Juan between 1928 and 1931.

13 Moreover, in 1929, it represented a consortium of Mendoza-based entrepreneurs in the United States to assure the sale of their product in that country (*Los Andes*, August 19, 1929; September 20, 1929, p. 5).

14 *Los Andes* (August 20, 1928, p. 5).

15 From 1914, various economic and institutional actors studied refrigeration techniques for railcars and the transportation of fruit between Mendoza and Buenos Aires, with varying degrees of success. Although there had been some antecedents, the most significant accomplishment in this regard was the one cited in this work. On the opening of the refrigeration facility, the *Los Andes* newspaper stated: "[...] the Mendoza fruit-growers have fulfilled the program concerning their duties to introduce the resources or factor [...] in order to expand the fruit-growing economy [...] and intensify exportation" (March 26, 1931), an assertion that illustrates the impact of refrigeration on local producers. (Translation by *Apuntes*).

the Spaniard Manuel Ruano, geared his investment toward fruit production, successfully integrating the growing, packing, and marketing stages by hiring exclusive sales agents in the Argentine Littoral.

3.2 Local repercussions of the import substitution policy: canned tomatoes

Another cash crop that was consolidated for the first time in the 1930s was the tomato, a staple that had been incorporated into the Argentine diet, in both fresh and processed forms, due to the sizable numbers of Italian immigrants among the population.¹⁶ The factors that affected the expansion of this agroindustry are macroeconomic. First, in the context of the international crisis and the consequent breakdown of multilateral trade and payments, Argentina restricted the entry of substitutable goods and promoted bilateral agreements, among other measures. In the case of tomatoes, there was a decline in imports starting in 1930, until a 126% price increase in 1933 (from 19 to 43 centavos per kilo)¹⁷ prompted Argentina to enter into a bilateral agreement with Italy, the main supplier of tomato paste. This agreement followed a common pattern for treaties in that decade: mutual customs duty concessions for certain agricultural and agroindustrial products, including Argentine chilled meat, grain, wool, and leather, and Italian oil, canned goods, and manufactured products (silk, wool, and cotton fabrics) (República Argentina, 1934). As a result, conditions for the marketing of local processed tomatoes (paste, extract and canned) were strengthened.

The rapid expansion of its production came about because the tomato is an annual crop that requires less capital, and growers are capable of reacting swiftly to market behavior. Tomatoes opened up a niche that was exploited by private investors who had previously been expanding their crops on a large scale, and later opened processing plants. At least until 1933-1934, the land under tomato cultivation in the Southern Oasis (General Alvear) caught up with and overtook fruit-tree coverage in a very short period. The small-scale tenant farmers' production was utilized to supply these factories, which were generally run by businessmen from outside the region. However, this created a situation of overproduction that would soon affect the sector (Barrio & Rodríguez Vázquez, 2018).

16 Starting in 1918, tomato paste was one of the most consumed imported foods in Argentina (Fernández, 2004, p. 8).

17 *Boletín Agrícola* (1935, [19], 20-32).

Not long after the expansion of the area under tomato cultivation, similar problems emerged to those that could be observed during the introduction of capitalist winegrowing: overproduction and lack of technical criteria to guide cultivation. As a likely consequence of the trade agreement with Italy and the flourishing interest of small-scale producers in supplying local factories with raw materials, in 1934-1935 the planted area increased by 177% from the previous year, vastly exceeding the demand of the nearby processing plants and consumer markets. This led to two results: greater state intervention and a dramatic decline in hectares cultivated.

Even so, canning remained a possible alternative for factories that also processed fruits. The arguments in favor were similar to those made in the case of fruit: tomato processing would reduce the vulnerability of producing a perishable good, enable regulation of supply, satisfy unrealized market demand, and yield increased profit margins. Thus, a characteristic of this period is the formation of multiproduct factories as a strategy for responding to critical cycles.

3.3 The engine of diversification: fruit cultivation

It is worth noting that the epicenter in the expansion of Argentine regional fruit development was the Alto Valle of Rio Negro, an area characterized by the formation of a network of smallholding producers who were highly vulnerable to vertically integrated foreign firms equipped with advanced technology and links with other economic agents. In this process, British capital – through the actions of the Buenos Aires Great Southern Railway – was instrumental in restructuring cultivation (Miranda, 1992; Bandieri & Blanco, 2007; De Jong, 2010). The geographical continuity between Mendoza and Argentine Patagonia suggests that the Rio Negro experience served as a benchmark for the Mendoza case. Moreover, the public agricultural policies implemented by the Ministry of Agriculture (MAN) during the 1930s, encouraged by the specialized press (Ospital, 2013), contributed to the expansion of fruit production in Mendoza.

That said, the province's fruit cultivation dates back to the end of the 19th century, interspersed with vineyards and used for subsistence. Among local leaders, winegrowing bodies, and technical specialists, there was a consensus that state promotion of fruit production would give the industry the competitiveness it needed to integrate into the national consumer market and boost the local economy. Perhaps on the basis of these considerations, fruit production was the industry that received the most state attention in terms of promotion mechanisms (loans, facilities for buying machinery, seed distribution) and regulation (specific legislation on packaging and dispatch, and on the organization of the relevant state agencies). In 1907,

attempts to stimulate secondary crops (fruit, olives) proved fruitless in terms of planted area, given the preference for vineyards – then enjoying a boom. Subsequently, in the 1920s, there were similar pilot projects aimed at expanding fruit cultivation. As a result, toward the end of that decade there was a notable increase in agricultural exploitation, which entered production in the 1930s (Table 2).

Table 2
Evolution of area planted with fruit trees per department, Mendoza, 1924-1925, 1937-1938 (in hectares)

Department	1924-1925	1930-1931	1935-1936	1937-1938	1931-1937 (%)
Southern Oasis (San Rafael, General Alvear)	2,795	3,686	6,602	7,737	110
Historical Area (Capital, Maipú, Godoy Cruz, Guaymallén, Lavalle, Luján, Las Heras)	2,206	2,763	2,722	3,181	1.5
Near East (Rivadavia, San Martín, Junín)	978	2,378	3,482	4,429	86
Uco Valley (San Carlos, Tunuyán, Tupungato)	258	944	2,400	2,696	186
Far East (La Paz, Santa Rosa)	713	839	1,599	1,881	124
Provincial total	6,950	10,610	14,405	19,924	87

Methodological note: the analysis begins in 1924, the year in which statistical data began to be published on the amount of land planted with fruit trees. The annual reports for 1933 and 1934 repeat the data corresponding to 1932.

Sources: Dirección General de Estadísticas de la Provincia de Mendoza (1926, pp. 438-439; 1932, p. 196; 1936, pp. 204-205; 1938, pp. 202-203); *Los Andes* (January 1, 1934).

Thus, the critical juncture that characterized winegrowing during those years was offset by the marketing of fruit in the Littoral, which represented a seamless incorporation into the national paradigm of agroindustrial diversification and development as an alternative, total or partial, to the open economy (Bacolla, 2008). The process was not without conflict, and this, precisely, was one of the industry's greatest weaknesses. Indeed, the promising and continual increase in fruit production faced obstacles to its integration into the national consumer market, where it was pitted against produce from Delta del Tigre and the Alto Valle of Río Negro.

Entrepreneurs made several attempts to form associations with a view to addressing this problem. For example, in 1913 a cooperative was established for the sale of fruit and wine from Mendoza and oranges from Corrientes

– representing an unprecedented agreement with producers from another province – but its success was short-lived given the difficulties associated with entering a market controlled by a sizable network of extra-regional agents and middlemen.

The scant shipments in the second half of the 1920s were followed by an overall increase of 117% from the 1932-1933 to the 1938-1939 marketing seasons, to which the characteristic peaches and pears of the Southern Oasis made an outstanding contribution (Table 3). That is, the “selection” of this variety of fruits, based on suitable environmental conditions, meant entering into competition with pears from Patagonia and peaches from Delta del Tigre. To be sure, 1932-1933 and, to a greater extent, 1935-1936 marked the beginning of a boom in the industry – in contrast to the less propitious fortunes of winegrowing – allowing for an understanding and a reappraisal of the special interest that the provincial government had in designing criteria related to packing and transporting fruit, and to providing the needed infrastructure and trained technicians. These measures aimed to standardize the production, selection, and packing of fresh fruit, on the one hand, and processed fruit on the other – fundamental considerations for entry into domestic and foreign markets.

Table 3
Dispatch of peaches, pears, tomatoes, and overall fresh fruit to the domestic market, Mendoza, 1922-1941 (in tons)

Years ⁽¹⁾	Peaches	Pears	Total fruit	Tomatoes
1922-1923			21,737	
1923-1924			19,429	
1924-1925			17,515	
1925-1926			10,703	
1926-1927			17,306	
1927-1928			14,151	
1928-1929	15,246	3,055	21,147	
1929-1930	6,234	2,385	15,466	
1930-1931	11,367	3,572	21,718	
1931-1932	7,269	3,682	15,203	
1932-1933	14,317	6,465	32,131	11,380
1933-1934	10,322	9,423	23,646	26,092
1934-1935	8,870	9,284	23,111	29,644
1935-1936	9,961	13,353	33,165	21,256
1936-1937	9,309	7,473 ⁽²⁾	42,295	7,701

1937-1938	17,075	21,408	52,742	20,840
1938-1939	24,000	25,000	70,000	
1939-1940	25,000	24,000	70,000	
1940-1941	13,418	19,935	52,000	

Notes:

⁽¹⁾ Business years run from July to June.

⁽²⁾ An *Anguilula silusiae* plague blighted the department of General Alvear (Southern Oasis) in 1935-1936 (*Los Andes*, August 2, 1936). Sources: Dirección General de Estadísticas de la Provincia de Mendoza (1932, p. 197; 1937, p. 181; 1938, p. 207); *Los Andes* (January 1, 1934; April 9, 1935); *Revista Mensual BAP* (N° 226, September 1936); Gobierno de Mendoza (1936, p. 206); República Argentina (1937, p. XLVI); Ministerio de Economía, Obras Públicas y Riego (1942).

Though the volume of shipments was growing, it was still moderate in relation to the resources that winegrowing mobilized, even in critical periods, nullifying the possibility of the overproduction crisis that the press and some agronomists had been predicting. In the event, it was bottlenecks and problems entering the consumer market that were detected. It is important to clarify that marketing is comprised of two fundamental stages: cold storage and distribution. The latter, in turn, includes several stages, including standardization, transportation, and sale. On the “supply” side, the distribution failure was attributed to the need for the merchandise to pass through Buenos Aires (even though the sales were to other provinces), the lack of refrigeration facilities in the regions, and difficulties in organizing cooperatives. In this regard, it was explained that “for Mendoza it would be a great advantage if production could be transported to the provinces in the North of the country, without the obligation to pass through the Capital, as occurs now with the dispatches to localities that are not within the area served by the railroad”¹⁸ (Wetzler, 1941, p. 69). However, the fruit distribution market was located in Buenos Aires, which meant that all production had to pass through the city before reaching its final destination (Wetzler, 1941, p. 45).

Meanwhile, the “fruit houses” – a category that included “central-market stallholders” – imposed excessive prices, “due to which fruit ends up being a luxury item and its popularization is impeded.”¹⁹ This situation was part of the reason for criticism of middlemen as parasitic agents in the chain. However, scrutiny of these aspects casts doubt on such a pejorative characterization, revealing that the agents were necessary for the effective placement of production (Lluch, 2015, pp. 17-19) given that they possessed

¹⁸ Translation by *Apuntes*.

¹⁹ *Los Andes* (January 26, 1936). (Translation by *Apuntes*).

information that was crucial for conserving merchandise – that is, contact with the refrigeration facilities – and achieving sales through linkages with wholesalers and retailers. Indeed, several local entrepreneurs hired consignees from the Littoral for the placement of production. Despite the criticism leveled at the concentration of shipments to Buenos Aires, it should be acknowledged that this city represented the largest concentration of population with the greatest purchasing power (Table 4), and it possessed refrigeration technology – practically non-existent in the rest of the provinces.²⁰ Finally, access to the sea opened up the possibility of marketing fruit in Europe and North America.

Table 4
Wine and fruit consumption, major Argentine cities, 1939

Province	Inhabitants	Wine consumption (liters per inhabitant)	Fruit consumption (kg/inhab)		
			Pears	Apples	Grapes
Greater Buenos Aires	3,666,585	64	9.72	10.0	10.60
Federal Capital	2,463,269	66	11.00	10.40	11.20
Buenos Aires	2,348,960	55	4.55	4.20	6.78
Córdoba	1,253,200	57	2.88	2.47	6.38
Santa Fe	1,522,776	56	2.41	2.29	5.64
Mendoza	504,877	N/D	4.85	3.16	9.90

Source: Ministerio de Economía, Obras Públicas y Riego (1939, pp. 17-24, 122-125).

These considerations account for the complexity inherent to placing on the consumer market the increasing volumes of fruit produced, allowing us to suggest that the early difficulties faced by the sector concerned not so much an overproduction crisis (an issue that would arise above all from 1942-1943) as the possibility of accessing technologies and distribution channels that would guarantee marketing. It is worth mentioning that these problems resulted in projects for the processing of fruit (driers and canners),²¹ which had become a central focus by the late 1930s.

20 This situation explains the numerous draft laws presented from the second half of the 1930s by legislative representatives from different provinces for the construction of regional refrigerated warehouses, comprising a network of packing sheds (cleaning, sorting, and packing) and the refrigeration facilities themselves (15 in fruit-growing areas and three in loading areas). Soon after, another draft law, presented by Simón Padrós (representative for Tucumán), proposed the creation of four regional refrigeration facilities in fruit-growing areas of the country, although another text stipulated four such facilities and eight packing sheds, with a view to dealing with possible overproduction (*Los Andes*, June 13, 15 and July 29, 1938).

21 *Los Andes* (April 28, 1938).

The impossibility of organizing shipments in installments (a method based on the use of varieties that ripened at different times of the year), coupled with the rapid pace of ripening, and the limited availability of wineries following the outbreak of WWII, came to a head in 1939 with the difficulties in selling Patagonian fruit, especially pears, abroad.²²

Given this situation, there were numerous attempts to stimulate consumption and regulate the market. One antecedent lies in the Ministry of Agriculture's organization of a fruit distribution market in the centers of consumption in the Federal Capital and the Littoral, but Cuyo was unable to participate in this initiative because of the distances the produce had to travel. A similar project was explored in 1933 with the organization of a fruit concentrator to reduce the cost of fresh fruit for low-income sectors.²³ Two years later, the Ministry presented a project, alongside municipalities in major cities, to foster consumption and direct sale of fruit from Río Negro, Mendoza, and San Juan by way of producers' associations, thereby avoiding middlemen.²⁴ But the viability of this initiative was dubious, since consumers would have to order the fruit, pay for it along with the shipping, and then receive it. Later, in 1939, a similar plan was formulated, through the Directorate of Fruit and Vegetables within the same ministry, to step up the sale of Williams pears via retailers throughout the country (municipal stalls in Capital Federal, Bahía Blanca, Rosario, Córdoba, Santa Fe, and Tucumán). The producers who adhered to this plan, after inclusion in a special registry,²⁵ charged between four and five centavos per crate and set the retail price of fruit at 25 centavos per kilogram. In turn, a price of 2.9 pesos per 20 kilogram crate was fixed for fruit transported by train, to cover the costs of harvesting, sorting, packing, and carriage besides the fruit itself.²⁶ In this way, an attempt was made, on the one hand, to prevent the packing companies and/or consignees from driving down payments to primary producers;²⁷ and, on the other, to set prices in order to encourage consumption of a product that was highly perishable and subject to overstock. As a result of the Ministry's plan, 50,000 crates

22 Río Negro was the hardest-hit province, its exports, particularly pears, having fallen by more than 20,000 tons (Wetzler, 1941, p. 75).

23 *Los Andes* (April 19, 1933)

24 *Los Andes* (January 21, 1935).

25 *Boletín Oficial de la Provincia de Mendoza, BOPM* (1938).

26 *Victoria* (January 21, February 4, 1939).

27 Prices paid to independent producers are referred to as "first sale" prices – that is, those received by producers for their fruit at the moment of placement in the packing shed. They are arbitrarily set by the firm running the packing shed, with refrigeration systems and internal and export marketing functions (De Jong, 2010).

(1,000 tons) were taken to “the interior” and 90,000 crates (3,000 tons) to Buenos Aires.²⁸ In total, this amounted to a quarter of all Mendoza’s produce marketed in 1937-1938.

Simultaneously, the provincial government signed a similar, albeit more ambitious, agreement with the Society of Argentine Fruit Distribution Agents (Sociedad de Agentes Distribuidores de Frutas Argentinas, SADFA), anticipating greater fruit sales. SADFA committed to take 150,000 crates (weighing 35 kilograms each) to market, paying the producer six centavos per kilogram and selling them at 30 centavos. This sale price, ultimately established at 20 centavos – that is, five centavos below the price of pears under the Ministry’s plan – would favor the actual placement of produce and promote a healthy diet among the middle- and low-income sectors. However, the agreement had some characteristics that were “naïve”: on the one hand, it heralded the removal of middlemen, or “parasites” – begging the question, what role did SADFA play? – which would mean a drop in the price of fruit and, thus, an immediate and drastic increase in consumption; on the other hand, there were no measures to promote consumption (such as allowances for dispatches in installments), overcome technical challenges (refrigeration facilities at the points of sale,²⁹ adherence to technical packing requirements), or address market saturation caused by the entry of fruit from Patagonia.

Of the 140 producers who were initially included in the provincial government’s agreement, only 50 remained; and of the total number of crates committed to by SADFA, only 28,000 were sent.³⁰ Moreover, by December 1940, SADFA had still not paid several signatory producers from the south.³¹ Although the government qualified the plan as satisfactory on the grounds that it did away with the middlemen, intermediary and product distribution operations instead revolved around the SADFA. These proposals were made in the framework of a debate about the state’s regulation and monitoring of the market, and the possibility of establishing *bolsas de frutas*³² – emphatically rejected by the Argentine Fruit-Growing Corporation (Corporación Frutícola Argentina),³³ the body that grouped together fruit exporters from around the country. Although this entity acknowledged that the low prices

28 *Victoria* (April 8, 1939).

29 Cold storage also relieves production, the simultaneity of which can otherwise overcome the capacity for consumption.

30 *Los Andes* (March 2 to 14, 1939).

31 *Los Andes* (February 16, 1939); *Victoria* (December 9, 1940).

32 Translator’s note: *bolsas de frutas* are fruit markets where produce is sold at more affordable prices for low-income sectors.

33 *Revista de la Corporación Frutícola Argentina* (1939, pp. 8-11).

would lead to an increase in consumption among the low-income sectors, it directly questioned the state's involvement in the initiative.³⁴

Another response to this situation was the state's support of the Federation of Fruit Producers (Federación de Productores Frutícola) in organizing marketing and gaining new markets;³⁵ the Federation, in the first instance, presented an "emergency plan"³⁶ to strengthen shipments to northern Argentina as an alternative to saturating the market in the Littoral, though we found no evidence it was implemented. However, these failed experiences worked as a basis to encourage the organization of producers, crop planning, design of production quality standards, elimination of middlemen, and surplus processing (canning). All of this occurred in the framework of a "dirigiste" conception of the state – that is, a set of measures aimed at establishing balanced conditions in the market and assuring the continuation of the primary production cycle, among other aspects, such as monetary and credit policy (Berrotarán, 2003; Jauregui, 2005).

Conclusion. How did the winegrowing crises enable diversification of production in Mendoza?

First, in response to the production crisis in the first decades of the 20th century, there was an early, intense debate about the need to diversify crops in the province, followed by the laying of the foundations upon which the project would be built. This debate complemented appraisals and proposals for state regulation and intervention aimed at overcoming negative conditions. Indeed, there was a general consensus that the wine monoculture implied an intermittent cycle of boom and overproduction crises that could only be qualified by expanding other agricultural activities and marketing fresh produce in the Argentine Littoral and abroad.

Consequently, the periods of economic stability opened up a context for the implementation of these projects, which bore hallmarks of experimentation and trial and error rather than results of deliberate planning. Even so, several actors took part in this process, particularly state technicians, businesses, producers, and the BA&P railroad as the agent that disseminated technical knowledge and controlled the product transportation stage. The cases reconstructed here (exportation of high-quality table grape varieties, tomato processing, and fruit cultivation) provide evidence of certain particularities marking this process. Attempts at grape exportation were made by a

34 *Revista de la Corporación Frutícola Argentina* (1939).

35 *Victoria* (November 26, 1938).

36 *Los Andes* (January 7, 1939).

small group of heavily capitalized businessmen with access to technology and knowledge of market trends, but these were rapidly thwarted by the crisis of 1929. The tomato industry received state protection (by way of a bilateral agreement with Italy) with the aim of boosting cultivation among primary producers from deprived areas for supply to factories nearby; despite the ongoing overproduction crisis, the industry managed to adapt and retained a fundamental position for several decades. Ultimately, the diversification process was driven by fruit cultivation, which, for several years, occupied an important position within the provincial and national agricultural sector (and the canning industry); by the 1920s, there was evidence of trial shipments being sent to foreign markets and the expansion of fruit cultivation on more specialized lots, based on mechanisms led by the radical Lencinist administration (1918-1928).

This attention from the provincial government demonstrates, on the one hand, that while winegrowing was central to the design of regulatory policies given the industry's status as the main source of tax income, fostering and addressing the demands of the new agro-industries, which had begun to emerge as part of the local production and economic panorama, became increasingly complex. On the other hand, it demonstrates that the origins of intensive fruit production trace back to the 1920s, rather than being a consequence of the supply regulation program implemented by the junta in the second half of the 1930s. Nor is there evidence of an automatic process of substituting vines with other crops.

It is possible to identify the consolidation of fruit-growing by this stage, in stark contrast to the critical juncture facing winegrowing; this confirms the idea that these complementary forms of production would operate as a containment framework to ameliorate the depressive cycles of the main industry. It is important to note that the fruit-oriented policies discussed and implemented during neoconservative governments were more regulatory than interventionist in relation to the market, since the technology for controlling and standardizing the increasing fruit production – marketed domestically as a priority – was designed and articulated with the aim of organizing production, which was expanding on the basis of technological improvements. The state thus began to concern itself not just with norms for packing and marketing, but with raising product quality. However, there remained a need to control levels of production, given the consequent latent risk of overproduction of goods that were perishable and/or did not feature greatly in the diet of the low-income sectors.

The strong emphasis on regional fruit production for the domestic market can be explained, from a macro point of view, by the crisis of 1929, which curtailed the entry of food from abroad and created a niche for domestic produce, prompting the consolidation of earlier experiences of regional diversification of production. From the regional point of view, other factors were the failed experience of exporting grapes coupled with the predominant influence of the Valletana area on export destinations, buoyed by commercial and business links with British capital in the Alto Valle of Río Negro.

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