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Adding value to local resources specifically tailored for developing São Paulo State's vitiviniculture

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Paper prepared for the 116th EAAE Seminar "SPATIAL DYNAMICS IN AGRI-
FOOD SYSTEMS: IMPLICATIONS FOR SUSTAINABILITY AND CONSUMER
WELFARE".

Parma (Italy)
October 27th -30th, 2010

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Abstract- São Paulo state's vitiviniculture ranks second in Brazil, being characterized by the production of table grapes and wines derived from American and hybrid varieties. Despite its economic, social, and environmental benefits, the state's vitiviniculture has witnessed an increasing dependence on grapes produced in other states over the last decade. Besides adding to the cost of producing wine in São Paulo, grape imports from the state of Rio Grande do Sul compromises not only product quality, but also the process of creating an identity for the product. To give a new impetus to the production of grapes and wines in São Paulo, the State of São Paulo Research Foundation (FAPESP) developed a project called "Revitalizing São Paulo's Vitivinicultural Chain," a joint effort by the state's Agriculture and Supply Secretariat, Federation of Industries, municipal governments, and main unions and cooperatives of the industry. Data about vitiviniculture was gathered from specific questionnaires given to grape growers and wine producers in the municipalities of Jarinu, Jundiá, São Miguel Arcanjo, and São Roque. This information enabled the creation of an original database for the state's sector. The analyses of São Paulo's vitivinicultural chain conducted through this project allowed us to address policy issues focused on reinforcing special product attributes related to specific territorial resources. This process resulted from the valorization of the characteristic cultural diversity of the state, including the social values constructed by people of Italian, Japanese, and Portuguese heritage over the course of the region's history. From this perspective, the project proposed differentiation strategies based on specific territorial resources, primarily typical grape varieties such as the Niagara and the IAC 138-22 "Máximo." Thus, the strategies aimed at building an identity for the state's wines include recovering the traditional cultural attributes of São Paulo's vitiviniculture and developing the production of the local wine grape varieties.

Keywords- territorial resources, development; vitiviniculture.

I. INTRODUCTION

São Paulo state's vitiviniculture ranks second in the national context and is dominated by the production of table grapes and wines derived from American and hybrid varieties (Fig. 1).

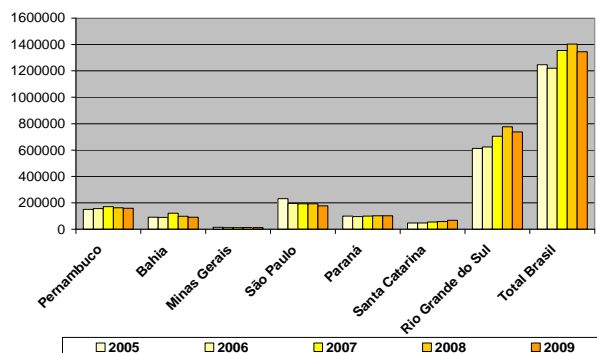


Fig 1. Brazil's Grape Production, 2005-2009 (Tons.) [1] e [2].

The region's natural conditions, the influence of Italian culture, and the results of research conducted by the Agronomic Institute of Campinas (IAC) have all contributed to the formation of the main vitivinicultural agglomerations in the state.

The vitivinicultural chain has significant social importance, insofar as grape production is carried out

by small family farmers. In this sense, it can attach workers to the land and their living space, which bears great significance. Thus, fostering vitiviniculture means promoting the permanence of highly-skilled family workers in the countryside and maintaining regional traditions.

In addition to these advantages, this sector serves as a source for new perspectives on regional development, because it demonstrates a significant capacity to link both wine and rural tourism. Aligned with environmental preservation and the rescue of traditional customs and traditions, the permanence and development of this economic activity can form a base to attract new jobs and investments in hotels, inns, and restaurants.

Smaller growers have been experiencing viticulture as a new way of adding value to grapes—as a secondary income source generally associated with rural tourism.

Despite the economic, social and environmental benefits of vitiviniculture, the last decade has seen a stagnation in São Paulo's vitiviniculture, allied with an increased dependence on grapes from Rio Grande do Sul. This situation results from the technological patterns adopted in the latter state and the level of competitiveness attained by its vitivicultural hubs, better supported by science and technology and more attuned to current standards of international production and marketing.

In addition to adding cost to São Paulo's wine production, grape importation from Rio Grande do Sul compromises product quality, prevents the construction of an identity for the product, and limits job opportunities in São Paulo.

Moreover, the multiplication of large real estate projects has fostered land competition, a fact that contributes to land price increases and the expropriation of family farmers.

This limiting context experienced by São Paulo's grape growers and winemakers confirms the need for research focused on fostering large-scale wine grape production in the state. Locally-grown grapes are therefore a prerequisite for São Paulo wine to achieve better quality and a unique identity.

The factors inherent in the new stage of world capitalism value provenance, and that which is original, typical, characteristic, and which thereby

reinforces regional vocations, local knowledge and culture, and historically-constructed local resources.

Here, competitiveness is tied to the production advantages linked to the territory of origin, the "*terroir*"; i.e., to advantages derived from the quality achieved by a product in specific locations. It is worth noting that some locations have already recognized the importance of their market advantages, and have begun to institutionalize an entire legal apparatus based on the certification of their products so as to ensure exclusivity of these advantages.

As observed by Tonietto (2008), this process entails formatting a collective project among the main agents involved in regional vitiviniculture, aimed at reinforcing the special attributes of the products related to specific territorial resources, whether based on climate, soil, or relief particularity, or on the valorization of know-how, culture, and social values developed over the course of the region's history [3].

From this perspective, this work will attempt to answer the question: "What are the land resources that should be employed by the collectivity of agents involved so as to provide an identity to the product, and therefore add value and contribute to the sustainability of São Paulo state's grape growers and winemakers?"

Thus, besides assessing the existing and latent local resources required for the development of São Paulo state's vitiviniculture, this work aims to assist in formulating differentiation strategies based on traditional, historically-constructed territorial resources.

To answer this question and meet the objectives proposed, the project dubbed "Revitalizing São Paulo's vitivicultural chain: competitiveness, governance, and sustainability" was developed, sponsored by São Paulo's Research Foundation (FAPESP), the result of a joint project between São Paulo's Secretariat of Agriculture and Supply, the Federation of Industries (FIESP), municipal governments, and cooperatives associated with the sector.

II. MATERIALS AND METHODS

The database resulting from the revitalization project is a landmark for São Paulo's vitiviniculture history, because it provides a basis for original information about the supply chain of the four municipalities involved: Jarinu, Jundiaí, São Roque, and São Miguel Arcanjo. This database was obtained through questionnaires completed by viticulturists and viniculturists in these locations.

Based on the material drawn from the questionnaires referring to the 2007-2008 crop year, and the qualitative information collected through *in loco* observations using a quantitative-descriptive methodology, we sought to produce a socioeconomic characterization of grape growers and winemakers, grape and artisanal wine production, wine tourism, and territorial aspects related to vitiviniculture. This information allowed us to build an original database for this sector in the state of São Paulo.

Data treatment involved the creation of an appropriate information system, using Microsoft Office Access 2003, which generated consistency tests and reports focused on ensuring the quality of the information. The methodology used enabled us to analyze and visualize the reality of the producers, including their land structure, the different profiles of grape producers, types of grape cultivars, the population engaged in wine production, and the social and economic importance of family and artisanal grape and wine production to the municipalities involved in the revitalization project.

The project's development gave rise to a series of initiatives aimed at fostering São Paulo state's grape and wine production, including the creation of the Institute of Vitiviniculture of São Paulo (SPVINHO) and the São Paulo State Sectorial Chamber of Grape and Wine, as well as the organization of events to promote wine from the state. Established by the state's Secretariat of Agriculture and Supply, the Chamber of Grape and Wine is a major landmark for the sector, insofar as it facilitates interaction and articulation among the participants, allowing them to enjoy greater representation at the federal level and reach joint solutions to obstacles. Such initiatives reinforce the organizational proximity necessary to value specific local resources.

In this work, the notion of specific resources is associated with the dynamics of the territory. As a result of the historical constitution of the place, the specific resource is formed over the long run and only

exists within the context from which it originates; it cannot be transferred [4].

In this conception, the territory starts to be a part of the production process, influencing the organization of the production systems because it offers specific resources, and because the presence of these resources depends on specific conditions that have been historically constructed in that location.

The offer of specific resources can constitute the principal tool available to a region to face competition with others. It is worth stressing that a territory's capacity to offer specificities is not developed solely through public policy; it can also result from alliances and partnerships among local agents, public and private, with the common interest of sharing a historically constructed "savoir-faire."

III. MAIN RESULTS

A. Geographical distribution of grape and wine producers in the municipalities of the project

A total of 945 grape growers and 139 winemakers and/or wine bottlers were interviewed, distributed as shown in Table 1:

Table 1. Number of vitiviniculturists registered per municipality.

Municipality	Grape growers	Wine producers	
		Makers	Bottlers
Jarinu	61	14	
Jundiaí	284	95	3
S M Arcanjo	8	14	
São Roque	592		13
Total	945	123	16

Source: Grape and Wine Census; FAPESP [5].

Based on the spatial analysis of 945 grape growers and 139 wine producers registered by the FAPESP project, it is possible to map out the following characteristics (Fig. 2):

- The municipality of São Miguel Arcanjo has the greatest concentration of grape producers, 592 or 62.6% of total producers registered by the project. This figure, along with information about the origin of producers collected during the interviews, shows that São Miguel constitutes an area of expansion of grape production in São Paulo. Two districts with a high

concentration of grapes, Abaitinga and Guararema, have attracted a number of grape producers from the north of the neighboring state of Paraná and from the region of Jundiaí in São Paulo.

- The municipality of Jundiaí has a prominent concentration of small winemakers, being home to 95 “artisanal” winemakers or 77.23% of the total recorded by the project.

- The municipality of São Roque concentrates the highest number of wine bottling plants, 13 of the 16 registered by the Project. The others are located in the municipality of Jundiaí.

Spatialization in São Paulo state’s wine sector is characterized by the geographic concentration of enterprises, particularly in the municipalities of Jundiaí and São Roque, a pattern which follows the sector’s trends at the national and international levels.

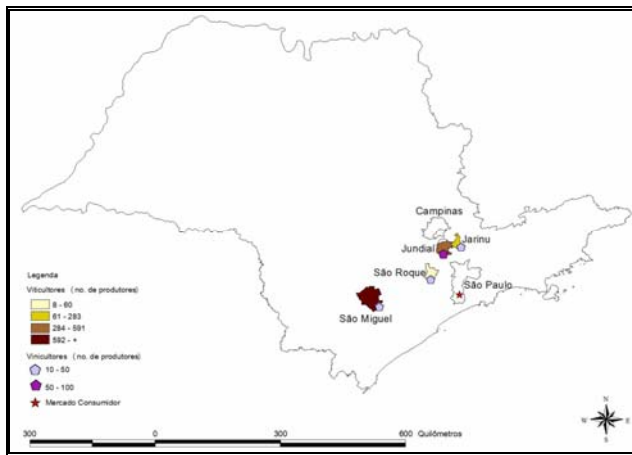


Fig. 2. Concentration of grape and wine producers by municipality [6].

Considering the total number of Agricultural Production Units (UPAs) of the municipalities involved in the project, we observed a more significant participation of the grape-producing UPAs in São Miguel Arcanjo. The grape-producing UPAs in this region represent 23.76% of the total UPAs, whereas in the municipality of Jundiaí they represent 18.5% and in Jarinu 12.05%. These data confirm the small representation of viticulture in the municipality of São Roque, insofar as only 3.8% of its UPAs are grape-producing (Fig. 3 through 6).

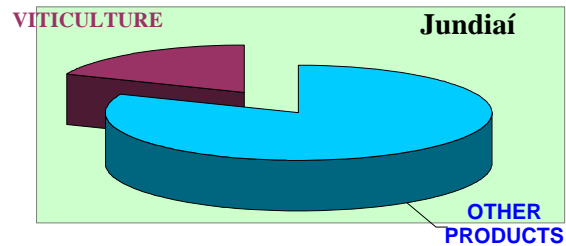


Fig. 3. Participation of grape-producing UPAs as a portion of the total in the municipality of Jundiaí [5].

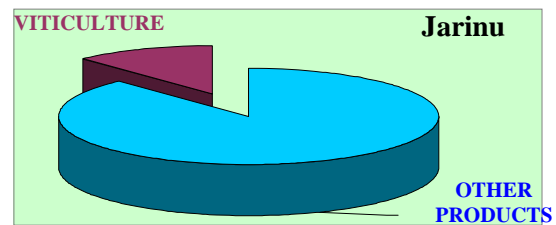


Fig. 4. Participation of grape-producing UPAs as a portion of the total in the municipality of Jarinu [5].

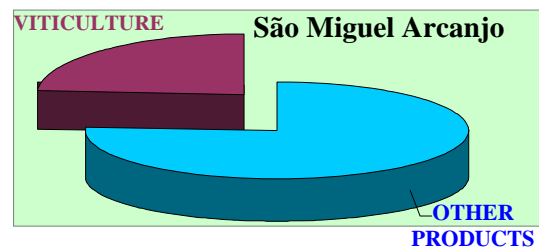


Fig. 5. Participation of grape-producing UPAs as a portion of the total in the municipality of São Miguel Arcanjo [5].

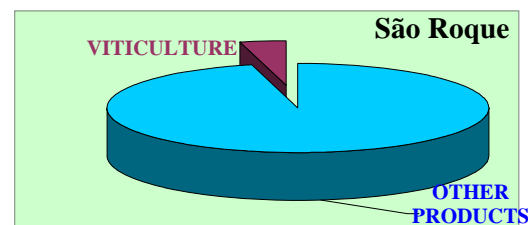


Fig. 6. Participation of grape-producing UPAs as a portion of the total in the municipality of São Roque [5].

Grape producers’ concentration, particularly in the municipalities of Jundiaí and São Miguel Arcanjo, has

generated the advantages which arise from geographic proximity, such as the high level of specialization of regional agricultural labor, the dissemination of tacit knowledge, and the construction of a system of social representations around vitiviniculture. Such positive externalizations, allied with the natural characteristics of vineyards, have enabled the production of table wine with a quality recognized in the market.

São Paulo state's viticulture took on greater economic importance with the presence of two concomitant factors that formed a favorable human-plant relationship: Italian immigrants and the Isabel grape variety [7].

Italian immigrants to the Jundiaí region were initially hired as "meeiros," or sharecroppers, on coffee plantations. The future development of grape production in the state of São Paulo was influenced by Italian culture, customs, traditional technical knowledge of vineyard management, and family labor.

B. Tradition in São Paulo state's vitiviniculture

Along with imports of the Isabel grape variety and the 1929 economic crisis, frosts in the first half of the twentieth century accounted for the disintegration of the large coffee estates and the development of viticulture in the region. Gradually, Italian immigrants freed themselves from their peasant condition to become landowners, while vineyards imposed their presence on the landscape and rural life. Small farm owners and vineyards emerged concomitantly, as a single phenomenon, resulting from the disintegration of large coffee properties [8].

The White Niagara grape was introduced in Brazil in 1894 and became a popular variety in the Jundiaí region. In 1933, the then Louveira district of Jundiaí witnessed a somatic mutation in a White Niagara plant, giving rise to the Pink Niagara. In less than ten years a radical transformation occurred in São Paulo state's viticultural structure: the Jundiaí-born Pink Niagara became the most cultivated and consumed common variety of table grape in the state of São Paulo [7].

In the São Roque municipality, vitiviniculture is also based on traditional methods practised since the late nineteenth century due to the influence of Portuguese and Italian immigrants. Investments in

research and the hiring of specialists associated with the implementation of new grape and wine production techniques were the main factors accounting for the formation of a cluster of 116 wine companies, and the region earning the title "Land of São Paulo's Wine," during the period that marked the peak of this activity.

Key to the development of vitiviniculture in São Roque was this European occupation, which brought not only the tradition of wine consumption, but also the knowledge of grape farming and winemaking.

The installation of a production unit of Italian origin by the Gancia Wine Producers in São Roque fostered the professionalization of this activity through the immigration of specialists. With the presence of Gancia, later transformed into SAVAS and then the Cinzano company, the municipality justified the launch of a laboratory by Brazil's Ministry of Agriculture, Cattle Raising and Supply (MAPA). During the golden age of wine production based on the municipality's own grapes, the Seibel cultivar was developed and is still present.

As for the municipality of São Miguel Arcanjo, its vitiviniculture received contributions from Japanese tradition. In 1956, the first grape plant was grown in this municipality, and growers associated with the Seicho-no-le religion expanded the crops despite lacking knowledge about how to handle them. At the time, they used a system called "Y," which caused problems of diseases, staining, and residues of Bordeaux mixture, which were solved over time.

In the early 1980s, São Miguel Arcanjo saw increasing marketing levels, when the fruit accounted for 70% of sales at the Food Supply Distribution Center (CEAGESP).

The development of fruit farming in São Miguel led an association created by the local Japanese community, affiliated with the former Agricultural Cooperative of Cotia (CAC), to create an office at the entrance to the city to organize its first grape fair. Following up on this initiative, the Association of Viticulturists of São Miguel Arcanjo (AVITI) was founded in 1985 to address other marketing aspects. It is also worth highlighting the importance of the interchange of experience and knowledge between agronomists, agricultural technicians, and producers from the Japanese community and their counterparts in

Japan in the development of grape farming and winemaking.

C. Characterization of São Paulo state's vitiviniculture

The analysis of the questionnaires allowed us to characterize the two basic links of São Paulo state's vitivinicultural chain: grape growers and wine producers.

Viticulturists represent the link of the chain responsible for supplying the raw material to be used in winemaking. The state's focus, mainly in the municipalities of the project, is on the production of table grapes.

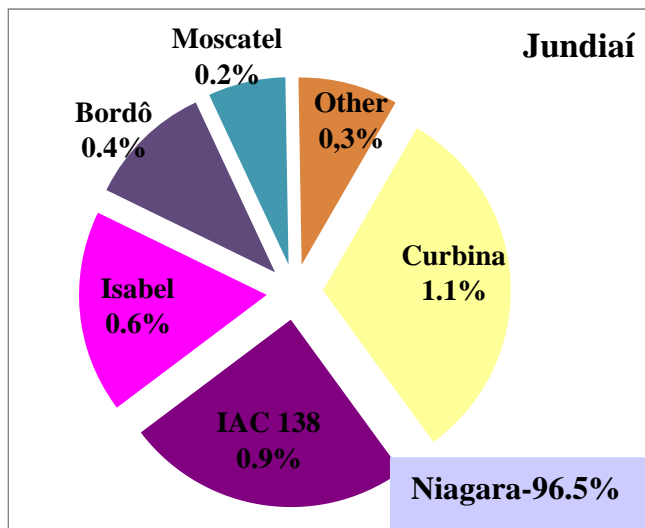


Fig. 7. Main grape cultivars according to production (%). Jundiaí, 2007-2008 crop [5].

The grape and wine census conducted within the project registered and interviewed 945 owners of grape-producing UPAs, distributed over 2,191.8 hectares in four municipalities in the state of São Paulo. From the total of 284 grape-producing UPAs registered by the grape and wine census for the municipality of Jundiaí, the Niagara cultivar is present in 280, which corresponds to 98.6% of the grape producing sites. In the Jarinu municipality, out of a total of 61 grape-producing UPAs, the Niagara cultivar appears in 60. It is worth emphasizing that this region is the most traditionally associated with

production of this cultivar in Brazil, and is the birthplace of the Pink Niagara.

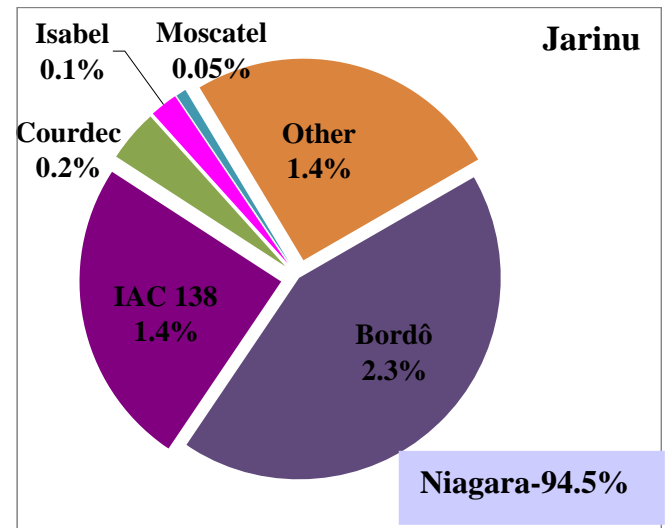


Fig. 8. Main grape cultivars according to production (%). Jarinu, 2007-2008 crop [5].

This tradition seen in the case of the Niagara is confirmed by the analysis of data on the production, by kilogram, per cultivar. The Niagara variety is the absolute leader in the municipalities of Jarinu and Jundiaí, and accounts for more than half of the grape production from São Miguel Arcanjo, which is home to most producers registered by the census. Although the Niagara cultivar accounts for 62% of São Miguel Arcanjo's total grape production, it is worth stressing the importance of fine table cultivars in this region, particularly the Rubi, Itália, Benitaka, and Brasil. As for the municipality of São Roque, its eight UPAs specialize in wine grape farming due to the local tradition of growing these cultivars and large demand due to the presence of 13 bottling lines in the region. In São Miguel Arcanjo, the Niagara cultivar makes up a lower portion of total grape production, accounting for only 26.9% of the total (Fig. 7 through 10).

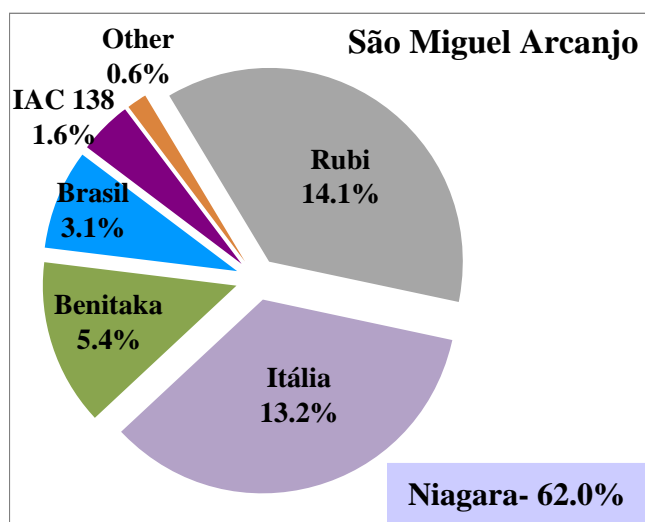


Fig. 9. Main grape cultivars according to production (%). São Miguel Arcanjo, 2007-2008 crop [5].

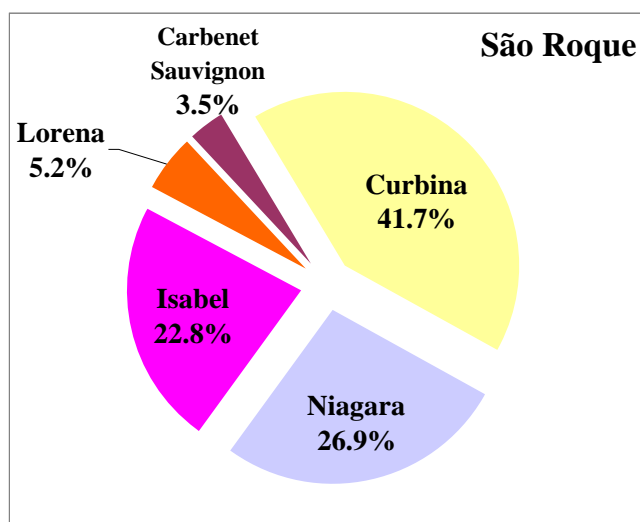


Fig. 10. Main grape cultivars according to production (%). São Roque, 2007-2008 crop [5].

The grape cultivars destined for winemaking are the American and the hybridized ones, including cultivars of table grapes. The use of these cultivars as raw material results in common wine production, which represents 85% of Brazil's wine market.

Altogether, there are 135 UPAs growing grapes for the production of common wine, representing 14% of the 945 grape-producing UPAs. The lowest proportion of properties that produce grapes for processing in

relation to total grape units was in São Miguel Arcanjo, at only 6%. However, when absolute figures are considered, this municipality loses out only to Jundiaí (Fig. 11).

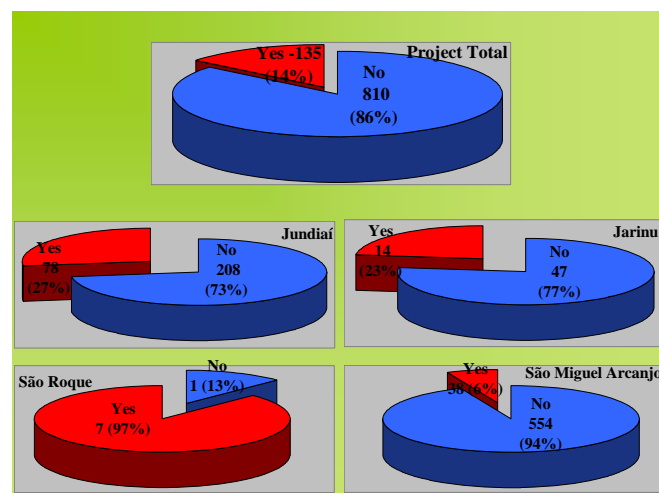


Fig. 11. Wine grape production [5].

In analyzing the 122 viticulturists that produce the varieties most consumed by the bottling lines in the state of São Paulo, 50 of them were observed to grow Isabel and 39 Bordô (Fig. 12).

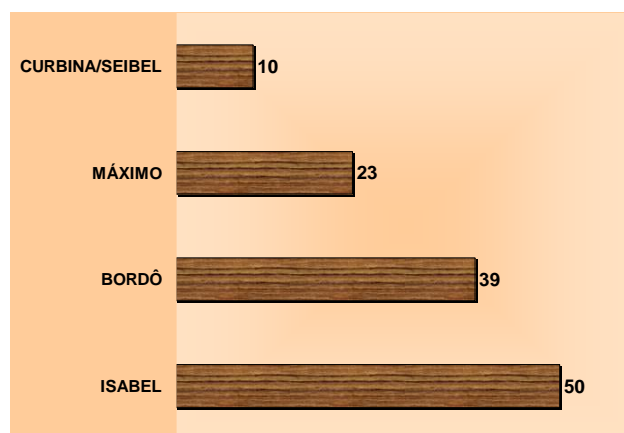


Fig. 12. Number of viticulturists growing the main varieties consumed by bottling lines in the state of São Paulo [5].

In the municipality of Jundiaí and the surrounding region, most producers use a low training system (1.60m), with a single cordon extending from one vine to the next, allied with heavy pruning. This training

system is deemed the most appropriate for common table grape cultivars, such as the Pink Niagara, and is the simplest and least expensive training system prevailing in the state of São Paulo [9].

The grape and wine census of the municipalities involved in the project reveals that grape cultivation currently takes place on small farms: more than half of the grape-producing properties of these four municipalities have 475 grape-producing UPAs, measuring up to 5 hectares. For instance, in São Miguel Arcanjo, 55.4% of the commercial grape-growing units measure up to 5 ha (Graph 13).

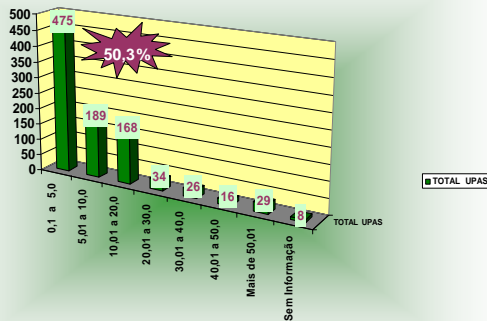


Fig. 13. Land structure of grape growing properties [5].

In São Miguel Arcanjo and Jundiaí, the municipalities with the highest concentration of grape-producing UPAs, properties measuring up to 20 ha prevail, accounting for 90% of the total of grape-producing properties.

For the four municipalities in the project, the information about where grape producers reside highlights the importance of this activity in fixing these farmers to the land. Of 945 grape producing farmers, 612 live on their rural properties, accounting for 65% of the total (Graph 14).

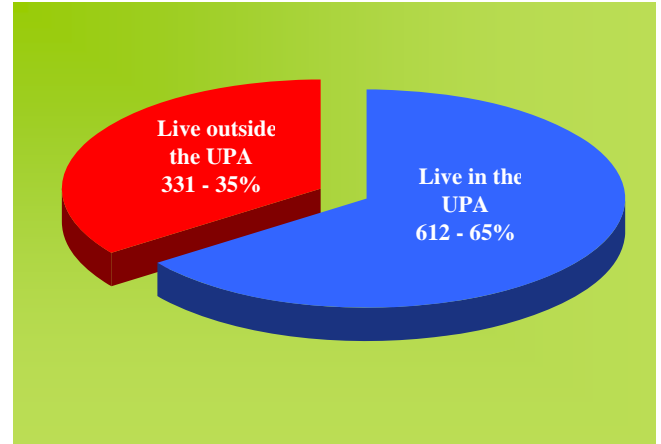


Fig. 14. Viticulturists' place of residence [5].

Besides noting that regional grape production is mainly developed in small properties, the census confirmed the importance of family labor to this activity, insofar as 44% of this labor force is composed of the owners' family members in the three main producing municipalities. Thus, the relevance of family farming to this traditional grape producing region of the state is evident.

Grape production employs 5,208 people in the three main municipalities examined by the project, the majority in São Miguel Arcanjo, where 3,498 people are employed by this sector. Next is Jundiaí with 1,424, and Jarinu with 286. Worth noting is the use of temporary labor in São Miguel Arcanjo's grape production, both in absolute terms (910 economically-active workers), and in relative terms: 26% of the people engaged in grape production in the municipality are temporary workers.

Viniculturists represent the central link insofar as they transform the raw material into the final product: the wine, the main objective of the supply chain.

The grape and wine census conducted under the project registered and interviewed 123 wine producers and 16 wine bottlers distributed throughout the four municipalities of the project: 14 producers in Jarinu; 95 producers and 3 bottlers in Jundiaí; 13 bottlers in São Roque, and 14 producers in São Miguel Arcanjo.

The municipalities of Jundiaí and São Roque lead the sector in the state of São Paulo. Both areas have large wine bottling companies that operate at the national level. Whereas Jundiaí is home to the highest

number of small producers, São Roque has the highest number of wine bottlers. A total of 123 artisanal winemakers in the municipalities of the project account for the production of 380,414 liters per year, whereas bottling plants bottle 41,586,000 liters of wine annually.

The analysis of the information gathered by the grape and wine census and visits to the locations enabled us to observe three main profiles of viticulturists/bottlers in the state of São Paulo:

- **large.** This group resents the lack of raw material produced in their state, questions the high rate of sales tax (ICMS) on the wine, suffers pressure arising from competing imports, and bottles wine for the state and the domestic market. It is a well-organized group, most members of which belong to more than one industry association, such as the national Association of Wine Bottlers (ANEV), or producers' unions affiliated with the Federation of Industries of the State of São Paulo (FIESP) and the Brazilian Association of Beverages (ABRABE).

- **medium.** This group also resents the lack of raw material produced in the state, is already formalized, and seeks to strengthen itself in the regional market.

- **small.** The largest group, mainly composed of artisanal producers, most of whom use knowledge and information supplied by friends and relatives. Not yet formalized, this group markets products to local and neighboring consumers and tourists. Despite this group's resistance to organization, important initiatives of associativism and cooperativism have emerged, notably because these are principal solutions for their situation of informality. Along these lines, the creation of the Cooperative of Wine Producers of the Caxambu District (AVA) in Jundiaí is in its final step of implementation.

In considering the origin of the grapes used in wine processing in Jundiaí, which is home to the largest number of producers in the state of São Paulo, it is observed that whereas 75.7% of the wine marketed is made from grapes grown by the wine producers, just 14% is made from grapes coming from the state of Rio Grande do Sul (Table 2).

With regard to the main grape cultivars used in wine processing, 35.1% of the wine produced by the 95 wine producers in Jundiaí use, as raw material, the

most typical table cultivar of the region, Niagara. The second most-used cultivar in Jundiaí is the Bordô, by 20.8% of the wine producers, and the third is the Corbina, used by 19.9%.

Table 2. Total wine produced according to the origin of the grape – Jundiaí [5].

Grape origin	Own consumption	%	Marketed	%
Own production	15.449	84,7	241.827	75,7
Third-parties (SP)	2.017	11,1	32.479	10,2
Third-parties (RS)	780	4,3	45.108	14,1
TOTAL	18.246	100	319.414	100

The Bordô cultivar is also used in the production of 65.6% of the wine from Jarinu and 56.6% of the wine from São Miguel Arcanjo (Fig. 16 and 17).

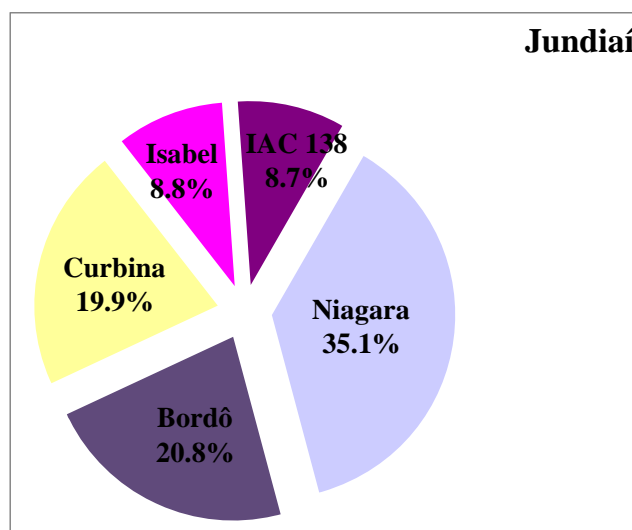


Fig. 15. Main grape cultivars used in wine making in the municipality of Jundiaí [5].

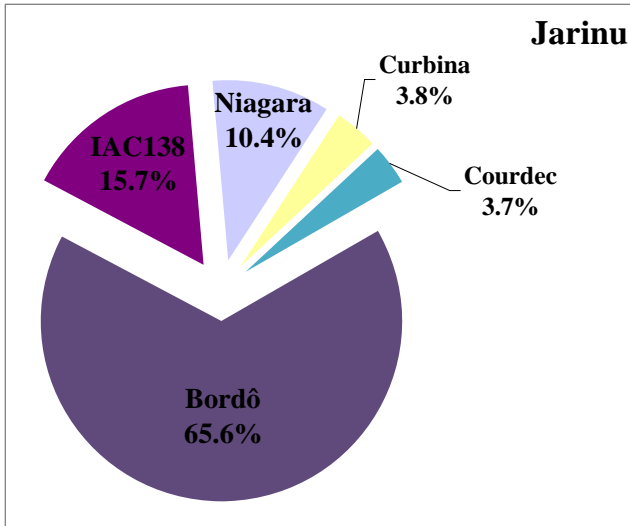


Fig. 16. Main grape cultivars used in winemaking in the municipality of Jarinu [5].

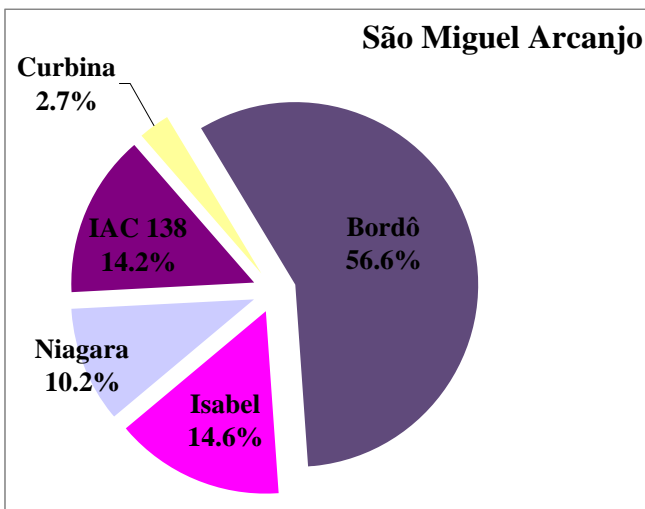


Fig. 17. Main grape cultivars used in wine production in the municipality of São Miguel Arcanjo [5].

The cultivar most imported by Jundiáí’s wine producers is the Bordô: 62% of this variety originates in the state of Rio Grande do Sul.

It is worth stressing the participation of the IAC 138-22 “Máximo” cultivar in the wine production of the municipalities within the project area: 8.7% in Jundiáí, 15.7% in Jarinu, and 14.2% in São Miguel Arcanjo. This cultivar originated in São Paulo and offers great potential for the grape and wine chain of

the state because it is a hybrid cultivar developed by the IAC, well adapted to the region’s weather conditions (Fig. 15 through 17).

The processing of the Niagara and the Máximo cultivars do not yield fine wines. However, because they can assure good production in the various wine regions in São Paulo, they can be inserted into strategies for giving identity to São Paulo’s wine, and therefore in the records of indication of origin.

With regard to the grape cultivars destined for the wine bottlers, the Isabel variety predominates, with a proportion of 56.9%, followed by the Bordô cultivar, at 32.9%. Undoubtedly, these cultivars are the most demanded by the bottler link of the chain (Fig. 18).

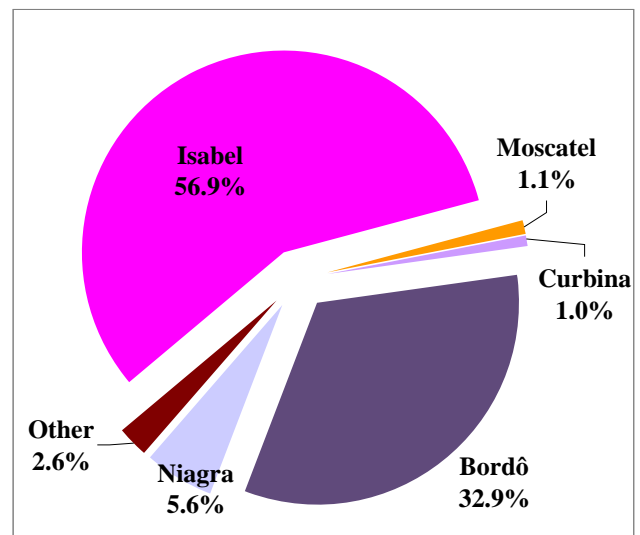


Fig. 18. Main grape cultivars used in the production of wine bottled in São Paulo [5].

Only 3.4% of wine bottlers in São Paulo produce their own grapes. Therefore, out of a total of 41,586,000 liters bottled, only 1,390,000 liters come from families who cultivate grapes and produce and bottle the wine. It is precisely the bottling of this large quantity of wine produced by third parties that characterizes the profile of these participants in São Paulo State’s grape and wine chain and justifies the use of the term “bottlers” for them.

The remaining 40,196,000 liters, which corresponds to 96.6% of the wine produced by bottling companies, is produced in Rio Grande do Sul, mainly in the municipalities located in the mountain ranges of that

state. To produce the 1,390,000 liters of wine, bottlers use grapes from São Paulo as follows: 26.5% of the wine comes from grapes that they grow themselves, and 73.5% derives from grapes produced in other municipalities of the state, particularly São Miguel Arcanjo, which accounts for 66% of the grapes used in the local wine production of these bottlers.

IV. CONCLUSIONS

Grape imports from the south of Brazil—notably of the Isabel and Bordô cultivars by growers also involved in the production process—have negative implications for wine quality. After traveling a distance of 1,000 kilometers, grapes do not reach the municipalities of São Paulo with ideal winemaking qualities. Both the excessive time after harvest and the lack of adequate care during the long journey cause conditions that promote infections by fungi and bacteria, undesirable in the wine production process.

Concerning the large wine producers and bottling companies in the state of São Paulo, bulk grape shipments from the South also generate negative implications for the quality of the product.

Imports of both grape and ready wine by wine makers and bottlers from São Paulo have a negative impact on wine quality and on the process of building the identity of the product, besides shifting employment and income out of the state of São Paulo.

Moreover, grape and wine imports attest to vitiviniculturists' lack of concern with wine quality, also confirming the lack of strategies of the chain participants for building the identity of São Paulo's wine and for conquering new market niches.

Thus, wine production based on grapes from the state of Rio Grande do Sul remains excluded from the current policies adopted by Brazil's Ministry of Agriculture, Cattle Raising and Supply (MAPA) aimed at valorizing typical products characteristic of certain localities and regions of the country.

These facts reveal that the physical proximity among producers, a key factor to the formation of São Paulo's grape and wine clusters analyzed in this work, has no longer proven sufficient to guarantee the insertion of regional production into the new forms of competitiveness and territorial development. These include the expansion of wine grape production and

reinforcement of São Paulo state's grape and wine chain, as well as the implementation of a localized productive system, geographic indications, and a collective certification brand.

Such strategies, based on the commitment of the agents involved and on the creation of collective projects, are increasingly important to achieve quality and formalization in local production, key factors for the competitiveness and sustainability of São Paulo state's grape and wine production chain.

Coordination among the agents involved and the development of their organizational proximity are prerequisites for building collective projects that add value to the specific resources aimed at the construction of vitivinicultural territories in the state of São Paulo.

In considering the sessions of the general meetings of the project since the end of 2006, and the creation of a three-pronged institutional framework involving municipal governments, research centers, and organized rural producers, the conclusion is that the project promoted a movement to foster the revitalization of São Paulo state's grape and wine chain and also strengthened governance among the main participants in this chain.

The dialogue opportunities that arose from the construction of spaces for interaction led to a balancing of the various interests involved, a fact that culminated in the creation of São Paulo state's Sectorial Chamber of Grape and Wine in November 2008 by the Agribusiness Development Agency (CODEAGRO) of the São Paulo State Secretariat of Agriculture and Supply (SAA/SP).

The launch of this chamber offered a permanent space for interaction among the agents involved in São Paulo state's vitiviculture, a fact that has already contributed to the construction of more efficacious governance, an unprecedented fact in the state's sector.

The most viable path suggested by our research towards solving the problems related to grape imports from other states and grape production in São Paulo is the strengthening of the institutional framework. The project's meetings also emphasized the need to establish organizational proximity among the agents and harmonize public, private, and community cooperation so as to create an innovative environment and allow micro-, small-, and middle-sized companies to become more productive and competitive. Some results are already emerging along this process, including new forms of cooperative association to

association, particularly the AVA from Jundiaí; the establishment of the “Coopervinho Paulista” wine cooperative, headquartered in Vinhedo; and the creation of São Paulo state’s Sectorial Chamber of Grape and Wine.

Given the negative implications of grape imports from Rio Grande do Sul, São Paulo state’s focus on the production of table grapes, and the market held by the wine produced from these grape varieties, such as the Niagara, our research team concluded that small producers, whose livelihood rests solely on grape production and who wish to start producing wine, should begin producing table wine. They already possess the techniques and knowledge to produce table grapes, and the resulting table wine has an 85% share of the national market. Moreover, the construction of an identity for São Paulo’s wine will necessarily include the valorization of the most typical grape varieties of the state. Considering the current conditions, the varieties with the highest potential are the Niagara and the IAC 138-22 “Máximo.”

The IAC 138-22 “Máximo” and the Niagara cultivars give typicity to the wine produced in the municipalities of São Paulo. In this sense, they are specific territorial resources well worthy of exploitation by strategies for wine brand identity building and for geographic indication, both of which are increasingly valued factors within the vitivinicultural context.

It is based on this recognition that this chain should be reorganized. At the same time as the Niagara can confer typicity to São Paulo’s wine, its use for processing will provide grape producers with one additional marketing option, as well as reinforce the regional and state grape-producing vocation.

A more intense use of these varieties in winemaking entails the participation of research centers aimed at generating technological innovations of two kinds: processing and pulp extracting machinery, and new organizational technologies for producers, which optimize grape selection and classification.

Adding value to grapes through processing and wine manufacturing and through the development of activities connected with rural and wine tourism already constitute a new income source and real sustainability possibilities for the small agricultural production in periurban spaces.

The cultural wealth brought by Italian, Portuguese, and Japanese immigrants inherent in São Paulo state’s vitivinicultural environment promotes cultural references and specific territorial resources that should be explored in strategies to attract tourists and consumers.

As clearly indicated in the grape and wine census conducted within the FAPESP project, grapes are grown on small family-based properties; therefore, any development policy designed for viticulture entails social gains for the municipalities’ producers. Viticulture is an economically important activity because it helps maintain the rural population on the land and conserves the rural landscape of the municipalities, particularly those situated around metropolitan areas.

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