# FAMILY AGRO-INDUSTRY: BARRIERS AND ACHIEVEMENTS IN THE WAY OF LEGALIZATION

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# ABSTRACT

The study aimed to characterize the legalized agribusinesses in the State Program of Agribusiness Sabor Gaúcho located in the Celeiro Region of Rio Grande do Sul (RS), Brazil. The theoretical references used for the research were obtained through a historical cultural analysis of agro-industries and family agriculture. The methodology

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is a qualitative descriptive study that was obtained through a questionnaire used to the managers of the family agro-industries in the year 2014, which allowed the identification and characterization of 17 agro-industries included in the Program State of Family Agro-industry (PEAF), Sabor Gaúcho<sup>TM</sup>, Rio Grande do Sul. Through the results obtained it was possible to identify that the greatest difficulties faced by farmers who own agroindustries in the legalization process are related to legislation, bureaucracy, lack of information and lack of financial resources. Among the positive aspects observed, after the legalization, highlight the increase in sales, increase of profits, improvements in work space, greater safety in the transportation of products and greater appreciation and credibility. The label «Sabor Gaúcho»<sup>TM</sup>, in turn, was evidenced as a consolidated brand of family farming, which provides benefits that include greater dissemination and greater appreciation of the products of family agro-industries. The study also reinforces the need for greater investments and public policies in support of family agro-industries to enable their legalization and keep them in operation.

Key words: Agribusiness, Brazil, family farming, food industry, granary region, public policy, Sabor Gaúcho™

# RESUMEN

En el estudio realizado se buscó caracterizar a las agroindustrias legalizadas a través del Programa Estatal de Agroindustria Sabor Gaúcho, las cuales se hallan ubicadas en la Región Granera de Rio Grande do Sul (RS), Brasil. La investigación se basa en análisis histórico-cultural de las agroindustrias y de la agricultura familiar. La metodología comprende estudio descriptivo de cariz cualitativo, cuyos datos fueron obtenidos por medio de cuestionario aplicado junto a los gestores (as) de las agroindustrias el año 2014, lo que permitió la identificación y la caracterización de 17 agroindustrias, incluidas en dicho Programa. A través de los resultados obtenidos fue posible identificar que las mayores dificultades enfrentadas por los agricultores propietarios de agroindustrias en el proceso de legalización están relacionadas con la legislación, la burocracia, la falta de información y de recursos financieros. Entre los aspectos positivos constatados, después de la legalización, se destacan el aumento de las ventas, aumento de las ganancias, mejoras del espacio de trabajo, mayor seguridad en el transporte de los productos y mayor valorización y credibilidad. El sello «Sabor Gaúcho»<sup>TM</sup>, por su parte, fue evidenciado como una marca consolidada de la agricultura familiar, que proporciona beneficios que incluyen una mejor divulgación y valorización de los productos de las agroindustrias familiares. El estudio también refuerza la necesidad de mayores inversiones y ampliación de las políticas públicas de apoyo a las agroindustrias familiares para posibilitar su legalización y mantenerlas en funcionamiento.

**Palabras clave:** agricultura familiar, agroindustria, Brasil, políticas públicas, región granera, Río Grande del Sur, Sabor Gaúcho™

# RÉSUMÉ

Cette étude vise à caractériser les entreprises agroalimentaires légalisées dans le cadre du Programme National Agroalimentaire Sabor Gaúcho situées dans la région de Celeiro du Rio Grande do Sul (RS), Brésil. Du pont de vue théorique, la recherche proposée est fondée sur de principes de l'analyse culturelle-historique des agro-industries et de l'agriculture familiale. La méthodologie appliquée à l'étude a un caractère descriptif et qualitatif, à la fois. Les données ont été obtenues à l'aide d'un questionnaire utilisé par les gestionnaires des agro-industries familiales en 2014, qui a permis d'identifier et de caractériser 17 agro-industries qui font partie du Programme de l'État pour L'Agroindustrie Familiale (PEAF), Sabor Gaúcho™, Rio Grande do Sul. Les résultats obtenus ont permis de constater que les plus grandes difficultés rencontrées par les agriculteurs propriétaires des agro-industries dans le processus de légalisation sont liées à la législation, à la bureaucratie, au manque d'informations et au manque de ressources financières. Parmi les aspects positifs observés, après la légalisation, nous soulignons l'augmentation des ventes, l'augmentation des bénéfices, l'amélioration de l'espace de travail, une plus grande sécurité dans le transport des produits, ainsi qu'une appréciation et une crédibilité accrues. Le label « Sabor Gaúcho »<sup>TM</sup>, à son tour, apparaît comme une marque consolidée d'agriculture familiale offrant diverses avantages, notamment, une plus grande diffusion et une plus grande appréciation des produits des industries agro-alimentaires familiales. L'étude souligne, également, la nécessité d'accroître les investissements et les politiques publiques en faveur des industries agro-alimentaires familiales afin de permettre leur légalisation et leur maintien en activité.

Mots-clé : Agribusiness, agriculture familiale, Brésil, industrie alimentaire, politiques publiques, région greniere, Sabor Gaúcho™

# RESUMO

No estudo realizado buscou-se caracterizar as agroindústrias legalizadas através do Programa Estadual de Agroindústria Sabor Gaúcho, as quais acham-se localizadas na Região Celeiro do Rio Grande do Sul (RS), Brasil. Partiu-se de uma análise histórico cultural das agroindústrias e da agricultura familiar. A metodologia envolveu estudo descritivo de cunho qualitativo, cujos dados foram obtidos por meio de um questionário empregado aos gestores (as) das agroindústrias familiares no ano de 2014, que permitiu a identificação e a caracterização de 17 agroindústrias, inclusas no Programa Estadual de Agroindústria Familiar (PEAF), Sabor Gaúcho™, do Rio Grande do Sul. Através dos resultados obtidos foi possível identificar que as maiores dificuldades enfrentadas pelos agricultores proprietários de agroindústrias no processo de legalização das mesmas estão relacionadas à legislação, à burocracia, à falta de informações e à falta de recursos financeiros. Entre os aspectos positivos constatados, após a legalização, destacam-se o aumento das vendas, aumento dos lucros, melhorias do espaço de trabalho, maior segurança no transporte dos produtos e maior valorização e credibilidade. O selo "Sabor Gaúcho" ™, por sua vez, foi evidenciado como uma marca consolidada da agricultura familiar, que proporciona benefícios que incluem a uma melhor divulgação e valorização dos produtos das agroindústrias familiares. O estudo também reforça a necessidade de maiores investimentos e aperfeiçoamento de políticas públicas de apoio às agroindústrias familiares para possibilitar a sua legalização e mantê-las em funcionamento.

**Palavras-chave:** agricultura familiar, agroindústria, Brasil, políticas públicas, região celeiro, Rio Grande do Sul, Sabor Gaúcho™

#### 1. INTRODUCTION

The Celeiro Region is located in the Northwest of Rio Grande do Sul (Brazil), on the border with Argentina and the West of the State of Santa Catarina, about 500 km from Porto Alegre. It consists of 21 municipalities that live 1.32% of the population approximately 144,442 inhabitants, according to the Demographic Census of 2010 (IBGE, 2018).

The Northwest Colonial Region of the State of Rio Grande do Sul is essentially agricultural and has a large number of small rural settlements (Trennepohl & Macagnan, 2008; IBGE, 2015), corresponding to about 40% of the regional population and is classified as rural, thus being much higher than the state average (15%).

According to Fauth & Feix (2016), the Gross Domestic Product (GDP) of the Regional Development Council of the State of Rio Grande do Sul - Corede Celeiro, is approximately R\$ 3.1 billion, or 0.9% of the total of the State, with agricultural productive activities, focused on grain production, with emphasis on the soy that is the main regional agricultural crop; corn and wheat. The swine industry which is the most important regional activity, followed by dairy cattle (FEE, 2017), besides the production of typical foods in small farms with production system based on family farm. Another differential of the region is the cooperative tradition, with a strong associative culture, having a regional development policy, linked to Family Agroindustry.

The extreme North of the Rio Grande do Sul (Alto Uruguay), where the Corede Celeiro is located, was initially occupied by indigenous peoples (*kaingangs, guaranis*, etc.), now living in the various areas of indigenous lands. Following are *caboclos*<sup>7</sup> and blacks from the South who have escaped slavery. The immigrants, whose main currents were represented by the Germans in 1824 and Italians in 1875 (Fauth & Feix, 2016), established themselves and devoted themselves to small-scale subsistence farming (Foguesatto, Artuzo & Machado, 2017; Mantelli, 2006).

Thus, occupation of the territory of the region was characterized by the predominance of rural establishments with small areas, and currently, in percentage terms, in relation to the total rural properties, those with an area

<sup>&</sup>lt;sup>7</sup> [Editor' note] Or «Mestiço«, in Brazil refers to a person ofmixed-race (in this case, between anindigenous Brazilian andone European ancestry).

between 2 and 5 ha represent 13.1%; those from 5 to 10 ha,22.8%; with an area between 10 and 20 ha, 34.2%; and, those in the stratum between 20 and 50 ha, account for more than 20%, being therefore essentially agricultural and family farming (IBGE, 2015). With the introduction of soybeans in the 1950, an entire industrial and commercial structure was developed based on the production and export of soybeans that modified the regional characteristics.

In the middle of the 1990 decade, in the Celeiro Region, there was a slow process of diversification of economic activities, with emphasis on the intensification and organization of milk production and the aggregation of value through the constitution and strengthening of family agro-industries, which were motivated by the great acceptance and recognition of products linked to the historical traditions of family agriculture. In addition, public policies at the time were decisive for the process of structuring and strengthening agro-industries (Mior, 2005; Becker & Anjos, 2015).

The agro-industry activity carried out by family farmers in the state of Rio Grande do Sul is known and recognized in Brazil. In the agricultural census of 2006, 82,220 households were identified that perform food processing, of which 30,255 reported having income from the activity. This is due to several factors, but especially to those related to ethnicity and local culture (Emater/RS-Ascar, 2016); that is, 378,546 family establishments covering 6,172 million hectares (IBGE, 2015). Rio Grande do Sul is the third Brazilian State with the largest number of people employed in family agriculture, with 991,000 people, representing 9.4% of the total estimated population and 17.3% of the total state population employed in this sector (IBGE, 2015). Family agriculture plays an important role in the production of food in Brazil, accounting for 87% of cassava, 70% of beans, 46% of corn, 34% of rice, 58% of milk, 59% of pork and 50% of % of the birds produced in the field (IBGE, 2015). In general, family farmers, even occupying small areas of land, are the main suppliers of basic foodstuffs in Brazil and those who generate the most employment in the field (EMBRAPA, 2018),

and should therefore be valued to maintain their activities.

In a study by Bittencourt & Bianchini (1996), in the Southern region of Brazil, the authors adopt some characteristics to define the familiar farmer as the whole farmer who has in agriculture, its main source of income (+ 80%) and that the basis of the workforce used in the establishment is developed by family members. The importance of family farming is increasingly evident. Proofs of this are the public policies implemented to improve the quality of life of families (Heberlê, 2014). According to Saraiva, Silva, Sousa, Cerqueira, Chagas & Toral (2013), the incentive to family agriculture is a tool capable of stimulating the production of sustainable food and promoting occupation and income; and Veiga, Favareto, Azevedo, Bittencourt, Vecchiatti, Magalhães & Jorge (2001) emphasize the importance of the presence of family agriculture in the Brazilian rural environment, since a rural region will have a more dynamic future the greater the diversification capacity of the local economy, driven by the characteristics of its agriculture.

The creation of the State Program of Family Agro-industry of the State of Rio Grande do Sul (PEAF), called «Sabor Gaúcho» <sup>TM</sup>, is a good example of a program that was transformed into a State Policy for Family Agro-industry, by Law 13,921 of January 17, 2012, benefiting in this way innumerable agroindustries that are in legalization phase (SDR, 2013).

The creation of the Food Acquisition Program (PAA, 2017) by Law No. 10,696 of July 2, 2003 and the National School Feeding Program (PNAE, 2017), regulated by Brasilian Law No. 11,947 of June 16, (Brazil-2009), are also examples of public policies that prioritize family farming, and recognize the dynamics of local development. These actions demonstrate respect for the values of an agriculture oriented to the diversification of productive systems and the environment (SDR, 2013), as well as, encourage the production, processing and commercialization of food in rural properties and in local agro-industries. In view of the above, the objective of the present study was

to characterize the family farms of the Celeiro Region, through the identification of difficulties and improvements resulting from the legalization process

# 2. MATERIAL AND METHODS

The work was carried out in the Celeiro Region of the state of Rio Grande do Sul in Brazil. For the conduction of the study, the agro-industries of the region were identified through the Department of Agribusiness, Marketing and Supply of the Department of Development Fishing Rural and Cooperativism (SDR/DA), the agro-industries of the region that are legalized and included in the State Program of Family Agro-industry (PEAF - SDR/DACA, 2014) Sabor Gaúcho<sup>™</sup> of Rio Grande do Sul. Were identified 17 agroindustries, which are located in the municipalities of Barra do Guarita, Coronel Bicaco, Crissiumal, Humaitá, Miraguaí, Redentora, São Martinho, Tenente Portela, Tiradentes do Sul, Três Passos and Vista Gaúcha. These agribusinesses were chosen according to the Emater-RS agribusiness register of the Celeiro Region.

After the identification, the agro-industries were visited and characterized through an open and closed questionnaire with a structured script conducted with the owners of the agro-industries.

After obtaining the data, these were evaluated including various criteria such as age group of agribusiness workers, difficulties encountered during the legalization process, improvements obtained after legalization, meaning of the Sabor Gaúcho Seal, among others. Whose data obtained were tabulated in order to allow the explanation of the results and their discussion.

### 3. RESULTS AND DISCUSSIONS

In the course of the present study, bibliographical research, occasional visits and informal conversations were carried out, which allowed to identify the real objective of the rural family agro-industry concept. These tools also allowed to observe that it does not only refer to the processing and processing of food, but rather to a sociocultural tradition, which has been preserved

through the descendants of the colonizing families of this region, which in this case refers to the Celeiro Region of Rio Grande do Sul. For Mior (2007) the constitution of rural agroindustries can be seen as a process of reconfiguration of resources (colonial product) promoted by family agriculture, together with its associative organizations and with the support of the public power. For this, legalization must be the paramount point, to guarantee the quality of the products, as well as to stay in compliance with the legislation. In addition, it was possible to know the diversity of enterprises, which are part of the family farming sector of the Celeiro Region, through the agro-industries visited, which have sanitary permit and environmental license approved by the inspection bodies.

There are 85 agro-industries enrolled in the program in the Celeiro Region (Colonial Northwest), of which 19 are included in the State Program of Family Agro-industry, Sabor Gaúcho<sup>TM</sup>, of which 17 are the focus of this study (PEAF-SDR/DACA, 2014). The results obtained in the present work can be observed in Table N<sup>o</sup> 1.

From the results presented in Table N° 1 of the present study, was observed that all agro-industries evaluated are in agreement with the current legislation, in relation to the Municipal Inspection System (SIM, 2017), sanitary permit of the National Sanitary Surveillance Agency (ANVISA, 2018) and the certification of the Ministry of Livestock and Supply (MAPA, 2017). Of these, 27.76% presented the SIM license, 55.55% ANVISA's permit, and 16.70% MAPA certification.

According to current Brazilian legislation, food products are regulated and inspected by two ministries: the Ministry of Livestock and Food Supply (MAPA, 2017), which regulates and registers products of animal origin, beverages and vegetables *in natura*, and such as the registration of establishments. In the case of products of animal origin there is a division of responsibilities defined by the legislation according to the geographical area where the products are marketed. In this sense, the license issued by the SIM is required for the commercialization of products of animal

Table 1
Results obtained through a questionnaire conducted in 17 agro-industries included in the State Program
of Family Agro-industry (PEAF), Sabor Gaúcho™, in the Celeiro Region, State of Rio Grande do Sul

lt has a Sanitary Permit			r school eals	•	ce of inst markets	itutional	
	(%)		(	%)		(%)	
SIM*	ANVISA**	MA PA ***	Yes	Not	Few	Big	None
27,76	55,55	16,7	76,47	23,53	29,42	52,94	17,64
Legalization was worth it		Payment of investments		Would invest again			
	(%)		(*	%)		(%)	
Yes	Not	Do not know	Easy	Difficult	Yes		Not
88,24	5,88	5,88	41,18	58,82	88.24		11,76

Notes: (\*) SIM: Municipal Inspection System; (\*\*) ANVISA: National Health Surveillance Agency; (\*\*\*) MAPA: Ministry of Agriculture Livestock and Food Supply

Source: own calculations

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origin at the municipal level, for the commercialization at state level, the license issued through the Inspection Coordination ofProducts of Animal Origin (CISPOA) and for the commercialization in Federal level, the license issued through the Federal Inspection System (SIF). According to data from the State Secretariat for Rural Development Fishing and Cooperativism (SDR, 2013), the agroindustry department currently has approximately 2,115 agro-industries registered in the State Program of Family Agro-industry (PEAF) and 542 inclusions.

Through the agro-industries interviewed and belonging to this study, all have their records in the SIM, as was mentioned previously, so they can only sell their products within the geographical area of their municipality, being regulated by municipal legislation and inspected by the Municipal Inspection Service, which is linked to the Department of Agriculture of the corresponding municipality.

The other products of plant origin are regulated by the Ministry of Health (MS) through the National Sanitary Surveillance Agency (ANVISA), State and Municipal Vigilance Secretariats. All these would be responsible for a set of actions capable of reducing and preventing health risks of the population and to intervene in health problems caused by the environment, production and circulation of goods and the provision of health services according to Law No. 8080 of 19 September 1990 (Brazil, 1990).

The artisanal process of agroindustrialization of food carried out by family farmers is an important source of income in rural areas, adding value to the product and contributing to local development. Traditionally, family farmers have been able to exploit the advantages associated with the availability of family workforce and the low cost of managing family labor (Guanziroli, Buainain & Di Sabbato, 2012).

The rural environment has been characterized as a space of pluriactivity, failing to stay only in productive activities, starting to process its products, adding more value, due to economic or cultural factors and in this context arise the rural family agroindustries, which can be defined as a form of organization where the rural family produces, processes and / or transforms part of their agricultural and / or livestock production, seeking the production of exchange value that is realized in the commercialization (Mior, 2007; Gazolla & Schneider, 2015). The family farmer is defined, according to Law No. 11.326/2006, as those who practice activities in rural areas, which do not have an area of more than four (4) fiscal modules, use family labor, whose income is predominant of economic activities linked to the establishment itself and is directed by the family itself and obtains the minimum percentage of family income from the economic activities of the establishment, through Law 11,326 of July 24, 2006, which establishes the guidelines for the formulation of the National Policy of Family Agriculture and Rural Family Enterprises (Brasil, 2006).

The data obtained from the sale of food for school feeding allowed to identify that 76.47% market food for school meals (Table  $N^{\circ}$  1), thus showing the importance of marketing these foods to schools, following the guidelines of the law on school meals and the Direct Money in School program for students in basic education. This program encourages, above all, the acquisition of diversified foodstuffs, produced locally and preferably from family agriculture, thus allowing the expansion of local markets and the marketing of their surplus. According to data from the 21st Regional Coordinator of Education of Três Passos (personal communication) in the 19 municipalities covered by this coordination, 75 schools are attended, where 25,479 meals are served daily through resources from the National School Feeding Program (PNAE, 2017), demonstrating the importance of school feeding in the regional economic context and the increasing opportunities of products of agricultural/family origin, in accordance with Law No. 11,947 of June 16, 2009, regarding school feeding for students of education (Brasil, 2009).

When asked about the institutional markets, the producers considered a minor point (29.42%), very important (52.94%) and unimportant (17.64%) (Table N° 1). In this way, it is possible to observe that more than 50% of respondents answered that institutional markets are important, and may be associated with the source of commercialization of these products, as being

from family agriculture and supported by specific programs such as the Food Acquisition Program (PAA) and the National School Feeding Program (PNAE), which have been considered as decisive for the insertion of family agro-industries in the market. These programs act as drivers for the growth and development of this sector, offer a guarantee of sale in the initial phase of the agroindustries, which is one of the most critical moments, giving farmers greater security in terms of sales. Initiatives such as programs for articulating regional gastronomy with typical products and government purchases of local products can be considered as new and important references in production and consumption (Conterato & Strate, 2019).

Regarding legalization, the results were significant, with 88.24% of those interviewed considering that legalization was worthwhile, while 5.88% said no, and 5.88% did not know how to respond (Table N<sup>a</sup>1). The legalization of an agro-industry requires the farmer to comply with certain rules, but these translate into improvements in working conditions, health and safety benefits in terms of health, environmental and fiscal aspects.

With regard to the payment of investments, the results presented allowed to identify that 41.18% of respondents considered that it was easy to pay the investments, while 58.82% reported that it was difficult (Table Nº 1). However, even though the payment was difficult, 88.24% of the producers reported that they would make the investment again, while 11.76% would not do so (Table N<sup>a</sup>1). Farmers who said they would make the investments again pointed out that the financial return is satisfactory, because they can work in an activity close to the family, like what they do and personal satisfaction. The study also points out that the dissatisfied, in large part, associate the dissatisfaction to the fact that they do not have family succession in the activity, or even to the fact that the investment was considerably elevated when compared to the return of small-scale agroindustrial production.

Another point worth mentioning is the age group of agro-industry workers, whose

 Table 2

 Age group of workers in family agro-industries

Age group	Percentage (%)
12 a 20	10
21 a 30	14
31 a 40	9
41 a 50	21
51 a 60	25
61 a 70	13
71 a 78	8

Notes: (\*) Repetitive result Source: own calculations

Young people, who are between the ages of 12 and 30, represent a percentage of 24% of the workers in the agro-industries studied. The presence of young people in agroindustries is a factor of great importance, especially with regard to the possibility of family succession in the activity of family agro-industry. In relation to this topic, 71% of the data surveyed have a successor in rural property and only 29% reported that they do not own it. In terms of motivational and exercise factors for young people is a generation of actions to improve the performance of children as a function of the workforce of the agro-industry. According to Pasquetti & Hildesheim (2014), a production unit stands out as the main determining factor for a succession of family farming. Thus, considering that the family farms of the Celeiro Region are mostly small, as in the study conducted by Conterato & Strat (2019), the production process adds value, generating income, increasing the autonomy, which can serve as a stimulus to the rural succession, constituting an alternative to agroindustrial integration.

The participation of women in the exercise of training, activities of expressive expression, the exercise of activities inside and outside the agro-industries, considering a way of communicating with the commercialization of them. Women accounted for 62% of the total workforce of the agroindustriesinterviewed. Work published by Guivant & Miranda (1999) highlights the transformation of food, which was once a reality in family agriculture, in the women's

domain, and now, with an agroindustrialization, it makes a source of income in family agro-industries. Thus, women's trajectory, before agroindustrialization, has already arisen in the area participation in the production of of household consumption (Roldan, Ghizzoni & Tonial, 2014). Nichelei & Waquil (2011) point out that agro-industry is often under the responsibility of women, even if taken together. The authors stress that, in the course of a survey, some respondents say that without women, such as agro-industries and their activities, and Mior (2005) launch an idea of value added within the groups, opening new women opportunities for empowerment, which comes through vocational training and direct access to the rights of free travel, such as these, an opportunity for a positive return on their work and improving their self-esteem and personal satisfaction.

Regarding the main difficulties in the legalization process of the agro-industries studied, 35% of the family farmers interviewed point out the aspects related to the legislation and the organization of documentation among the main difficulties encountered during the process of legalization of agro-industries (Table N<sup> $\circ$ </sup> 3). The excess of bureaucracy was reported as the main difficulty in the legalization process of agro-industries, by 30% of respondents. However, it is also important to note that 35% of the farmers interviewed stated that the process of legalizing agro-industries was not difficult (Table N<sup> $\circ$ </sup> 3).

Table 3

Main difficulties encountered by family farmers
during the legalization process of agro-industries

Main difficulties	Percentage* (%)
Financial resources	23
Bureaucracy	30
Legislation	35
Disinformation	18
Documentation	35
Lack of support	18
It was not difficult	35

Notes: (\*) Repetitive result Source: own calculations

The requirements for the legalization of rural family agro-industries end up placing them at the same level as large agribusinesses, that is, the requirements in terms of legislation are practically the same, the size of the agroindustry and its production capacity being an aspect of less relevance. A study by Aguirre, Martin & Menezes (2018) with family agroindustries of the municipality of Santana do Livramento (Rio Grande do Sul), reports that it has been alleged by many family agroindustries that there is a great difficulty in adapting these to the norms of the current legislation, which ends up making the legalization process unfeasible, since it requires the small agro-industries fall under the same legislation that applies to the larger food industries. It is especially because of this difficulty that many family farmers give up to legalize their agro-industries or remain with them in informality.

The commercialization of food in an informal way can pose a risk to the health of the consumers, as well as to the environment, by the inadequate handling of residues. The informality of agro-industries can also result in losses to the State, which fails to collect the Tax on Goods Movement and Provision of Services (ICMS), and losses to the family farmer, who is permanently at risk of having their products seized by inspection, need of agility of the legalization process a primordial aspect for the guarantee of the well-being of all those involved in this productive chain. It was precisely with the purpose of fostering the development of the family agro-industry and providing new income alternatives that the Rio Grande do Sul government developed a series of measures to facilitate the implantation and legalization of family agroindustries in the state. It is in this context that the State Program of Family Agroindustry (PEAF) was created, which seeks to provide family farmers with the opportunity to move away from informality in the commercialization of agroindustrial products through professional training, technical assistance, participation in fairs, sale with the block (INR), among other aspects (SDR, 2013). The seal Sabor Gaúcho<sup>™</sup> is a brand that identifies the products that originated

in the family agriculture of Rio Grande do Sul, that is, the state of Rio Grande do Sul and that participate in the PEAF, whose authorization of use in their products can be requested by the agro-industry that are with the issues fiscal, health and environmental issues (Conterato & Strate, 2019). According to Vendruscolo, Thomé Da Cruz & Schneider (2016), taking as a reference what is happening in Europe, the need and importance of rethinking public policies and standards of quality and safety of small-scale food, taking into account the techniques, traditional knowledge and reality of production.

Regarding financial resources, 23% of family farmers interviewed reported that this is one of the relevant factors in the legalization process of agro-industries, since the process generally requires many adjustments in the physical structure of agro-industries, as well as the acquisition of a large amount ofequipment (Table Nº 3). Therefore, for the legalization of the agro-industries, investments are necessary, and in many cases are not available on the property and it is necessary to search for personal loans in banking branches, which is done in most cases through the National Program for Strengthening Agriculture Family (PRONAF). This program was created by Law No. 1,946 of June 28, 1996 (Brasil, 1996) and is intended to stimulate income generation and improve the use of family labor through the financing of rural agricultural activities and services and nonfarming, developed in a rural establishment or in nearby community areas. The lack of financial incentives by government programs, with respect to initial investments with adequate infrastructure and necessary equipment, was cited as the second item in order of importance in a study carried out on the difficulties of legalization of agroindustries in the municipality of Santana of Livramento; and the lack of financial resources, since the investments expended for the construction of the agro-industry-in general-, are very high, did not succeed in legalizing them, and remained in the informality (Aguirre et al., 2018). Public policies are pointed out by other studies as important and necessary for the development

of family agro-industry. For Pérez, Wizniewsky, Godoy, Moraes & Reys (2009) there is a demand for specific and efficient public policies so that family farmers can increase rural income generation in agroindustries, while Mior (2007) states that the sustainability of agro-industries will depend on the continuity and strengthening of horizontal networks, as well as, of a greater presence of public policies to support these new arrangements between family farming, value-adding processes and the territory.

For 17% of the interviewees, the lack of information on the part of the farmers and entities related to agriculture is another obstacle for the development of this sector, where the farmer does not know the ways to legalize the agro-industry (Table N<sup>a</sup>3). In fact, with regard to the process of legalization of agro-industries in the state of Rio Grande do Sul there is no single place where it is possible to obtain all the information necessary for the process. This is precisely because of the complexity and diversity of rules, norms and legislation that imply guidelines and / or adaptations in the environmental, sanitary and fiscal areas, and this information is distributed in several sectors, including the municipal offices of Emater/RS-Ascar, prefectures, rural unions, among others, which, in general, make it difficult for farmers to have access to this information. In this sense, work by Aguirre et al. (2018) has as a suggestion the creation of a single organ, in which all information and legalization processes could be centralized, in order to facilitate the process of opening new agroindustries.

Another relevant point highlighted by 28% of respondents is bureaucracy (Table N° 3), which encompasses all current legislation, mainly in relation to the registration of agroindustrial enterprises and products. This information corroborates what was reported by Ferraz, Brandão & Pase (2008) in small agro-industries, located in the Southwestern region of Paraná. Results similar to those observed in this study were addressed and reported by Pérez *et al.* (2009), for the municipality of Santa Rosa/Rio Grande do Sul, which affirmed that family agro-industries play an important role in the

development of family agriculture, but point out the need for adaptations in social, economic, health, fiscal and environmental aspects, because they are based on an old legislation, which hinders and limits the regularization process. Therefore, it is evidenced the need for a revision in the legislation or an adaptation to the reality of family agriculture.

Main improvements obtained after the legalization process were described by the rural producers after the legalization of agroindustries can be observed in Table N<sup>a</sup>4. Among the main items identified as improvements are the sales, by 80% of the respondents, the safety in transportation and space 75% of the farmers interviewed. These results are associated with the transition from informality to formality; that is, the legalization of family agro-industries allowed improving access to new markets and greater proximity to consumers and, consequently, to improve sales, thus allowing greater tranquility in transportation of industrialized products.

#### Table 4

Improvements obtained after the legalization of agro-industries

lm provem ents	Percentage (%)*
Sales	82
Marketing	48
Transportation Safety	76
Quality	48
Credibility	65
Product Rating	65
Tranquility	35
Work space	76
Profit	55

Notes: (\*) Repetitive result Source: own calculations

Likewise, the legalization of agro-industries ensures free circulation with the products to be marketed. Also, although the legalization of an agro-industry requires the farmer to comply with certain legal norms in relation to the physical space of the agro-industries, which, however, when carried out for the legalization process, result in improvements in the workspace and even benefits to health, as reported by some farmers (Aguirre *et al.*, 2018). Thus, what was seen before the legalization process as a difficulty, the need to adapt the work space, is considered as an improvement by 75% of farmers, which contributes with great relevance to the quality of life of families involved in the production process.

Regarding sales, 80% of the respondents reported an increase in sales after the legalization of agro-industries, ranging from 30% to 100%, whose percentages were associated with the type of product, the size of the agro-industry and the availability of labor. It is also important to inform that there was no record of reduction in sales for any of the respondents after the legalization of agroindustries. Thus, considering the information obtained in this study, the process of legalization of agro-industries contributed to the increase of sales of the products processed in them. This is a very important aspect since Aguirre et al. (2018) warn of the risk that changes in the physical structure and processes of production of agro-industries, with a view to legalization, besides representing a high investment can still lead to a decrease in sales, as the product loses its artisanal character.

The art of «know-how» adopted by the owners of agro-industries is that it provides autonomy in production and marketing, allowing the valuation of artisanal enterprises. The products conserved for the subsistence of the rural family, which were destined for consumption in the off-season, are now processed and marketed, becoming a commercial product with a value of exchange and, therefore, source of income of the family production unit (Mior, 2007; Karnopp, Vogt, Bernardy & Etges, 2016). For Breitenbach, Bündchen, Brandão & Caires (2017), agroindustrial family firms find their origin in the colonial tradition of food processing for domestic consumption, and these companies usually work on a small scale of production and market in regionalized markets. In these cases, to be more successful in terms of business strategies, they focus on consumers, who value their specific attributes, such as local production, raw material origin, and marketing sites.

Considering the aspects related to the valorization of agroindustrial products, the seal Sabor Gaúcho<sup>TM</sup> presents exactly this objective because it is a brand that identifies the products originating from the family farming of Rio Grande do Sul. In this sense, the results obtained in relation to what it meant for the owners of agro-industries researched to obtain the Sabor Gaúcho<sup>TM</sup> seal are presented in Table N<sup>o</sup> 5.

Table 5

Results of the analysis of the meaning of the Sabor Gaúcho™ Seal for legalized agro-industries

Meaning of Sabor Gaúcho seal	Percentage (%)*
Disclosure	29
Family Agriculture Brand	25
Product appreciation	65
Improvement in sales	29
Sell on farmer's block	5
Many do not know	25
Nothing has changed	18
Participate in free fairs	18
Notes: (*) Repetitive result	

Source: own calculations

According to the data obtained, for 65% of the farmers interviewed, the label Sabor Gaúcho<sup>TM</sup> meant appreciation of the product and for about 30% of the farmers. It meant greater dissemination and improvement of sales. In this way, the Sabor Gaúcho<sup>™</sup> label can be considered a great achievement of family agriculture in Rio Grande do Sul, providing farmers with access to professional training, dissemination and valorization of family agriculture products, sales and mainly because this program is a consolidated brand of family farming. Such valorization of the products of the family agro-industries, for Vendruscolo et al. (2016), should be thought from the maintenance of the locally rooted livelihoods, in order to reduce the erosion process promoted by the homogenizing agri-food system. Historically, there has been a process of decapitalization of family farmers and rural exodus, amplified by the conjuncture dictated by the large agribusiness groups that require scale and increasingly restric tive sanitary standards. Therefore, there is a need to

strengthen family farming, revaluation of rural landscapes and search for alternative strategies for generating income in rural areas, for which heritage preservation initiatives such as the cultural landscape (Heidtmann Junior& Loch, 2014; Gazolla, 2017).

### 4. FINAL CONSIDERATIONS

The present study made it possible to identify many limits and potentialities of the family agroindustries of the Celeiro Region State of Rio Grande do Sul. Thus, it can be said that the greatest difficulties faced by farmers who own agro-industries in the legalization process are related to legislation, bureaucracy, lack of information and lack of financial resources. Among these difficulties, Brazilian legislation can be considered as one of the main limiting factors for the growth of family agro-industries, especially for presenting legal requirements for these small agro-industries, at the same level of demands of large agri-food industries. However, it is important to note that, after overcoming the difficulties reported, the results of the process of legalization of family agro-industries are quite positive. These results were perceived by farmers through increased sales, increased profits, greater security in the transportation of products in the face of regulatory barriers, improvements in the work space and greater appreciation and credibility of the products of legalized family agro-industries.

The work also showed that the label Sabor Gaúcho<sup>TM</sup>, a brand that identifies the products that originate in the family agriculture of the state of Rio Grande do Sul, is a great achievement for the agro-industries of the state. It isdue to it provides to farmers access to professional training, dissemination and valorization of products, marketing with a block of production, improvement in sales, greater dissemination and greater appreciation of their products and, mainly because it is a consolidated brand of family farming.

Finally, it is important to highlight the need for greater investments and public policies in support of family agro-industries in all governmental spheres. Such measures would enable the legalization of family agro-industries and to keep them in operation, as well as to encourage greater participation and appreciation of women and of the young people in the activities of management and conduction of the family agro-industries, contributing to the succession in the familiar rural properties.

### REFERENCIAS

- Aguirre, A. A., Martin, A. M., &Menezes, L. M. (2018). Dificuldades encontradas durante o processo de legalização das agroindústrias no município de Santana do Livramento (RS). UERGS, 4(1), 137-151. doi: 10.21674/2448-0479.41.136-151
- Agência Nacional de Vigilância Sanitária, ANVISA. (2018). *Dados diversos*. Retrieved from http://www.emater.mg.gov.br
- Bittencourt, G. A.,& Bianchini, V. (1996). Agricultura familiar na região sul do Brasil. Brasilia: Consultoria UTF/036-FAO/ INCRA.
- Becker, C. & Anjos, F. S. D. (2015).São os mercados institucionais da agricultura familiar um instrumento para o desenvolvimento rural?Estudo de caso em municípios do sul do Brasil.Revista de la Facultad de Agronomía, 114(3), 143-152.
- Brasil. (1990). Lei nº 8.080, de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências. Brasília. Retrieved from http:// www.planalto.gov.br/ccivil\_03/leis/ L8080.htm
- Brasil. (1996). Decreto Lei nº 1946, de 28 de junho de 1996. Cria o Programa Nacional de Fortalecimento da Agricultura Familiar – PRONAF e dá outras providências. Brasília. Retrieved from http:// www2.camara.leg.br/legin/fed/decret/1996/ decreto-1946-28-junho-1996-435815publicacaooriginal-1-pe.html
- Brasil. (2006). Lei nº 11.326, de 24 de julho de 2006. Estabelece as diretrizes para a formulação da Política Nacional da Agricultura Familiar e Empreendimentos Familiares Rurais. Brasília. Retrieved from http://www.planalto.gov.br/ ccivil\_03/\_Ato2004-2006/2006/Lei/ L11326.htm

- Brasil. (2009). Lei nº 11.947, de 16 de junho de 2009. Dispõe sobre o atendimento da alimentação escolar e do Programa Dinheiro Direto na Escola aos alunos da educação básica. Brasília. Retrieved from http://www.planalto.gov.br/ccivil\_03/ \_Ato2007-2010/2009/Lei/L11947.htm
- Breitenbach, R., Bündchen, A., Brandão, J. B., &Caires, L. M. (2017). Perception of performance and importance to consumers agro-industry of family companies in the northern region of Rio Grande do Sul state. *Ciência Rural, 47*(05), e20151399. doi: 10.1590/0103-8478cr20151399
- Conterato, M. A.,& Strate, M. F. D. (2019). Práticas de agroindustrialização e arranjos produtivos locais como estratégia de diversificar e fortalecer a agricultura familiar no Rio Grande do Sul.*Redes (Santa Cruz do Sul. Online), 24*(1), 227-245. doi: 10.17058/ redes.v24i1.13052
- Empresa de Assistência Técnica e Extensão Rural do Rio Grande do Sul, EMATER/RS-ASCAR. (2016). *Relatório de atividades 2015*. Porto Alegre: Emater/RS-Ascar.
- Empresa Brasileira de Pesquisa Agropecuária, EMBRAPA . (2018). *Dados diversos*. Retrieved from https://www.embrapa.br
- Fauth, E. M., & Feix, R. D. (2016). A aglomeração produtiva de laticínios Fronteira Noroeste Celeiro. In Macadar, B. M. & Costa, R. M. da (Orgs.), Aglomerações e arranjos produtivos locais no Rio Grande do Sul (pp. 488-520). Porto Alegre: FEE.
- Ferraz, O. G., Brandão, S., & Pase, H. L. (2008).Sistema COOPAFI: o desafio da construção de um sistema integrado de comercialização e de apoio às agroindústrias familiares da região sudoeste do Paraná. [Anais do] SOBER XLVI Congreso da Sociedade Brasileira de Economia, Administração e Sociologia Rural. Retrieved from https:// www5.unioeste.br/portalunioeste/arq/files/ GEFHEMP/09\_-\_Sistema\_COOPAFI\_o\_ Desafio\_da\_Constru%C3%A7%C3%A3o\_de\_ um\_Sistema\_de\_Comercializacao.pdf
- Fundação de Economia e Estatística Siegfried Emanuel Heuser, FEE. (2017). *Dados diversos*.Retrieved from https:// www.fee.rs.gov.br/

- Foguesatto, C. R., Artuzo, F. D., &Machado, J. A. D. (2017). Panorama atual e perspectivas futuras das agroindústrias familiares no Rio Grande do Sul. *Desenvolvimento Socioeconômico em Debate*, 3(1), 4-18. doi: 10.18616/ rdsd.v3i1.3763
- Gazolla, M. (2017). Atores sociais e novidades na agroindústria familiar rural: avançando no debate sobre os seus mercados. [Anais do] 6º Encontro de Economia Gaúcha, 1-30. Retrieved fromhttp://cdn.fee.tche.br/eeg/6/mesa15/ Atores\_Sociais\_e\_Novidades\_na\_Agroindustria\_Familiarpdf
- Gazolla, M.,& Schneider, S. (2015). Conhecimentos, produção de novidades e transições sociotécnicas nas agroindústrias familiares. Organizações Rurais & Agroindustriais, 17(2). Retrieved fromhttp:// www.redalyc.org/articulo.oa?id=87841064004
- Guanziroli, C. E., Buainain, A. M.,& Di Sabbato, A. (2012). Dez anos de evolução da agricultura familiar no Brasil: (1996 e 2006). *Revista de Economia e Sociologia Rural*, 50(2), 351-370.
- Guivant, J. S., Miranda, C. (1999). As duas caras de Jano: agroindústrias e agricultura familiar diante da questão ambiental. *Caderno de Ciência & Tecnologia, 16*(3), 85-128.
- Heberlê, A. L. O. (2014). A agricultura familiar brasileira no contexto mundial. Retrieved fromhttps://www.embrapa.br/busca-denoticias/-/noticia/1871776/artigo-aagricultura-familiar-brasileira-no-contextomundial
- Heidtmann Junior, D. E. D., & Loch, C. (2014). Cultural landscape and the new possibilities for familiar rural activity. *Ciência Rural*, 44(11), 1988-1994. doi: 10.1590/0103-8478cr20120601
- Instituto Brasileiro de Geografia e Estatística, IBGE. (2015). *Censo agropecuário de* 2006.Retrieved fromhttps://www.ibge.gov.br
- Instituto Brasileiro de Geografia e Estatística, IBGE. (2018). *Censo demográfico 2010*. Retrieved fromhttp://www.sidra.ibge.gov.br
- Karnopp, E., Vogt, O. P., Bernardy, R. J., &Etges, V. E. (2016). Agroindústrias familiares no sul do Brasil: o território na perspectiva do desenvolvimento.*RDE-Revista de Desenvolvimento Econômico*, 1(1), 666-684. doi: 10.21452/rde.v2i34.4262

Mantelli, J. (2006). O processo de ocupação do Noroeste do Rio Grande do Sul e a evolução agrária. *Geografia, 31*(2), 269-278.

- Ministério da Agricultura Pecuária e Abastecimento, MAPA. (2017). *Certificação zootécnica*. Retrieved fromhttp:// www.agricultura.gov.br/
- Mior, L. C. (2005). *Agricultores familiares,* agroindústrias e redes de desenvolvimento rural. Chapecó, SC: Editora Argos.
- Mior, L. C. (2007). Agricultura familiar, agroindústria e desenvolvimento territorial. [Anais do] *Colóquio Internacional de Desenvolvimento Rural Sustentável*, Florianópolis, SC.Retrieved from https:// nmdsc.paginas.ufsc.br/files/2011/05/ Mior\_Agriculturafamiliar\_agroindustria\_e\_desenvolvimento\_territorial.pdf
- Nichelei, F. S.,& Waquil, P. D. (2011). Rural familiar agro-industry, quality of colonial production and the view of theory of the convention. *Ciência Rural*, 41(12), 2230-2235. doi: 10.1590/S0103-84782011001200030
- Pasquetti, E, P. A.,&Hillesheim, L. P. (2014). Sucessão na agricultura familiar no Município de Nova Candelária/RS. In Cotrim, D. (Org.), Desemolvimento rural e agricultura familiar: produção acadêmica da Ascar (pp. 267-291). Porto Alegre, RS: Emater/RS-Ascar, Coleção Desenvolvimento Rural, (3). Retrieved from http://www.emater.tche.br/ site/arquivos\_pdf/teses//E\_Book3.pdf
- Pérez, F. C., Wizniewsky, J. G., Godoy, C. M. T., Moraes, C. S. & Reys, M. A. (2009). Agroindústrias familiares como estratégia de desenvolvimento para o município de Santa Rosa/RS: O caso da legislação. Porto Alegre/RS:Sociedade Brasileira de Economia, Administração e Sociologia Rural, pp. 1-14.Retrieved from http://www.sober.org.br/palestra/13/ 1066.pdf
- Programa de Aquisição de Alimentos, PAA. (2017). *Dados diversos*. Retrieved fromhttp:// www.mda.gov.br/sitemda/secretaria/saf-paa/ sobre-o-programa
- Programa Estadual de Agroindústria Familiar do Estado do Rio Grande do Sul, PEAF-SDR/DACA. (2014). Dados diversos. Lei nº 13.921, de 17 de janeiro de 2012. Rio Grande do Sul: Secretaria Estadual de Desenvolvimento Rural Pesca e Cooperativismo, Relação de agroindústrias inclusas no PEAF. DACA/ SDR. Retrieved from http://upload/www. sdr.rs.gov.br/ 140818151055relacao\_de\_agroindustrias\_ inclusas\_no\_peaf\_publicacao\_agosto\_2014.pdf

- Programa Nacional de Alimentação Escolar, PNAE. (2017). *Dados diversos*. Retrieved fromhttp://www.fnde.gov.br/programas/ pnae
- Roldan, B. B., Ghizzoni, L., Tonial, M. A. L. (2014). As mulheres na agroindústria familiar no Rio Grande do Sul: participação e sustentabilidade. Porto Alegre: Emater/RS-Ascar.
- Saraiva, E. B., Silva, A. P. F., Sousa, A. A., Cerqueira, G. F., Chagas, C. M. S.,& Toral, N. (2013). Panorama of purchasing food products from family farmers for the Brazilian School Nutrition Program.*Ciência e Saúde Coletiva*, 18(4), 927-935. doi: 10.1590/ S1413-81232013000400004
- Secretaria Estadual de Desenvolvimento Rural Pesca e Cooperativismo, SDR. (2013). Dados diversos. Rio Grande do Sul. Manual operativo do programa estadual de agroindústria. Porto Alegre, RS: DACA/SDR. Retrieved from http:// www.sdr.rs.gov.br
- Sistema de Inspeção Municipal, SIM. (2017). Dados diversos. Retrieved fromhttp:// www.mda.gov.br/
- Trennepohl, D., Macagnan, R. (2008). Impactos ambientais da dinâmica de desenvolvimento da região noroeste colonial do Rio Grande do Sul. *Revista Brasileira de Gestão e Desenvolvimento Regional*, 4(1), 195-220.
- Veiga, J. E., Favareto, A., Azevedo, C. M. A., Bittencourt, G., Vecchiatti, K., Magalhães, R., &Jorge, R. (2001). O Brasil rural precisa de uma estratégia de desenvolvimento. Brasília: Convênio FIPE-IICA(MDA/CNDRS/ NEAD. Retrieved from https:// www.cairu.br/biblioteca/arquivos/ Agronegocios/ Brasil rural precisa estrategia desenvolvimento 1.pdf
- Vendruscolo, R., Thomé Da Cruz, F.,& Schneider, S. (2016). (Re) valorización de los alimentos de la agricultura familiar: límites y particularidades de las estrategias agroalimentarias en el estado de Rio Grande do Sul, Brasil. *Agroalimentaria*, 22(42), 149-169.