



Agroecology and direct sale of organic food: a study of two marketing experiences in Santa Catarina, Brazil

Agroecologia e venda direta de alimentos orgânicos: estudo de duas experiências de comercialização em Santa Catarina

Edimar Luiz RODE^{1*}, Oscar José ROVER², Cristiano DESCONSI²

¹ Centro de Motivação Ecológica e Alternativas Rurais (CEMEAR), Presidente Getúlio, SC, Brasil.

² Universidade Federal de Santa Catarina (UFSC), Florianópolis, SC, Brasil.

* E-mail of contact: edimar.rode91@gmail.com

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ABSTRACT: This article analyzes two direct marketing experiences between farmers and consumers in Santa Catarina, Brazil, regarding the valorization of the agroecological principle of agrobiodiversity and key elements of short food supply chains (SFSCs). The Ecoserra Agroecological Baskets located in the Lages region and the Responsible Consumer Groups (RCGs) in the Florianópolis region were analyzed from the following categories: (i) agrobiodiversity and (ii) geographical and relational proximity. This paper studies two cases in which the data were collected through participant observation, document analysis, and interviews with key informants. Both experiences have great commercialized diversity, differing from each other by the fresh or processed nature of the products and by their origin in the territory or from more distant places. The RCGs showed more significant geographical and relational proximity, ensuring diversification of products from the territory and greater participation of farmers and consumers in the dynamics generated. Ecoserra Baskets work with an agrobiodiversity of more distant origin and less relational proximity between the actors involved, with little consumer engagement. We concluded that both experiences have growth potential; however, in the case of Ecoserra, there is room to expand the valorization of constituent elements of agroecology and SFSCs.

Keywords: short food supply chains; agroecological principles; alternative food networks; family farming

RESUMO: Este artigo analisa duas experiências de comercialização direta entre agricultores e consumidores de Santa Catarina, no tocante a valorização do princípio agroecológico da agrobiodiversidade e de elementos-chave dos circuitos curtos de comercialização (CCC). As Cestas Agroecológicas Ecoserra (localizadas na região de Lages) e as Células de Consumidores Responsáveis (CCR) – (na região de Florianópolis) foram analisadas a partir das seguintes categorias: (i) agrobiodiversidade e (ii) proximidade geográfica e relacional. O trabalho faz um estudo de dois casos em que os dados foram coletados através de observação participante, análise de documentos e entrevistas com informantes-chave. Ambas as experiências possuem grande diversidade comercializada, diferindo entre si pelo caráter *in natura* ou processado dos produtos, assim como pela sua origem no território ou de locais mais distantes. As CCR evidenciaram maior proximidade geográfica e relacional, garantindo diversificação de produtos do território e maior participação dos agricultores e consumidores nas dinâmicas geradas. As Cestas Ecoserra trabalham com uma agrobiodiversidade de origem mais distante e menor proximidade relacional entre os atores envolvidos, com pouco engajamento dos consumidores. Concluímos que ambas as experiências têm potencial de crescimento, contudo, no caso da Ecoserra, há espaço para ampliar a valorização de elementos constituintes da agroecologia e dos CCC.

Palavras-chave: circuitos curtos de comercialização; princípios agroecológicos; redes alimentares alternativas; agricultura familiar..

1. Introduction

In recent decades, industrial agriculture and the global agri-food system, hegemonically controlled by large corporations, have been responsible for significant socio-economic and environmental impacts. There is a growing demand for alternatives to this production model so as to value family farming, diversified agricultural systems, the conservation of natural resources, and the provision of ecological services that can be resilient to ongoing climate and economic changes on the planet (Altieri & Nicholls, 2012).

In recent years, debates have arisen about building new local food systems, with more significant approximation between producers and consumers, with their more active participation in the processes and greater decision-making power (Gelbcke *et al.*, 2018). These discussions emphasize topics related to short food supply chains (SFSCs), which seek

to bring producers and consumers geographically and relationally closer in local markets that value the territory. To Darolt (2013), these short food supply chains are viable and have growth potential for ecologically based family farmers.

To better understand the new localized food systems, this study was based on the following question: How do the organization and dynamics of direct sale marketing experiences stimulate the agroecological principle of agrobiodiversity and key elements of SFSCs in the territories in which they operate? This study aimed to comparatively analyze two marketing experiences of organic/agroecological food baskets that operate through direct sales by advance orders (DSAOs¹). The analysis was based on the agroecological principle of agrobiodiversity and two key elements of SFSCs:

- (i) geographical proximity; and
- (ii) relational proximity.

¹ Direct sales by advance orders (DSAOs) occur through direct articulation between farmers and consumers; advance orders for food baskets are made through the Internet and delivered at home or at common delivery points where consumers pick up the baskets (Escosteguy, 2019).

The experiences studied were the Ecoserra Agroecological Baskets in Lages/SC and the Responsible Consumer Groups in the metropolitan area of Florianópolis/SC.

This paper is organized into four parts beyond this introduction. The first presents the theoretical framework in three subsections, particularly the discussion on the agri-food system, agroecological principles, and short food supply chains. The second part discusses the methodology used in this study, and the third presents the results and discussions. The conclusions are at the end of the paper.

2. Theoretical framework

2.1. Industrial agriculture and the agri-food system

Guided by the adoption of technological packages of the Green Revolution, such as the intensive use of agrochemicals and mechanization, industrial agriculture failed to ensure food for the population without generating negative impacts such as damage to water resources, soils, air, fauna, wild flora, and human health (Altieri & Nicholls, 2012). This production model is dependent on fossil fuels and outside capital and is often controlled by few financial, agrochemical, and seed corporations (Machado & Machado Filho, 2014). These corporations dominate investments in the sector and global food distribution and are responsible for the dominant discourse that only higher agricultural productivity could end hunger (Dal Soglio, 2016). However, according to the FAO (2018), approximately 800 million people worldwide suffer from chronic hunger, a datum certainly aggravated by the

COVID-19 pandemic. At the same time, the world already produces enough food to feed nine to ten billion people, the population estimated for 2050. The main problem of hunger is not the supply, but the distribution of food, in addition to the right and access to land, income, or support networks to have a healthy diet (Altieri & Nicholls, 2012).

Moreover, combined with the increasing standardization of eating habits, these factors favored creating a production-distribution-consumption model based on long food supply chains, distancing producers and consumers (Darolt, 2013). This model of food production and distribution has been receiving much criticism due to its socio-economic and environmental externalities and impacts on the health of producers and consumers, generating contrary movements defined as alternative agri-food networks (Goodman, 2003), many guided by principles of agroecology (Rover & Riepe, 2015).

In this sense, one of the issues that this article analyzes is how the experiences of SFSCs stimulate agroecology in the territories where they operate through the principle of agrobiodiversity. In parallel, it verifies whether they strengthen proximity relations in the marketing dynamics, stimulating geographical (spatial) and relational proximity relations. Next, we will address the theoretical framework substantiating the choices of these categories of analysis.

2.2. Agroecology and some of its principles

Agroecology is based on the valorization of the biodiversity of agroecosystems and the recognition of family and peasant agriculture and traditional communities. It opposes the globally dominant

agri-food system, marked by industrial agriculture. Agroecology promotes crop variety diversification, the intercropping and agroforestry systems, and the integration between animal and plant production, allowing high productivity with the proper use of sunlight, water resources, and soil (Altieri & Nicholls, 2012).

Agrobiodiversity (production diversity) would strengthen ecological and socio-economic resilience, reducing the risk or intensity of losses in the face of climate change. It allows creating new market opportunities and increasing income from marketing a more significant variety of products, in addition to greater nutritional security, a consequence of more diversified food consumption (FAO, 2018). In the present paper, agrobiodiversity was analyzed regarding the diversity of marketed products because, as Viegas (2016), we considered that marketing diversity is the cause and result of a more significant production diversity, and the greater this diversity of marketing is, the more considerable the agrobiodiversity tends to be in the production units.

Agroecological principles require a transformation in production systems, fostering local food production by family farmers based on ancestral knowledge and local resources through the use of local varieties and breeds of plants and animals adapted to each territory. These sets of practices used by farmers adapt very well to the conditions of each site and may lead to the conservation and regeneration of natural resources, in addition to being a wealth for researchers who seek to create new agroecosystems adapted to the socio-economic reality of small farmers (Altieri & Nicholls, 2012).

Within this perspective, the local territories and the social actors involved where the production processes take place are valued, and it is important

to consider not only the production but the distribution, marketing, and consumption of the food. New agri-food systems are formed that propose to value the local scale, maintaining articulations with supralocal scales and having as one of their pillars the construction of proximity marketing circuits, guaranteeing better conditions for the construction of markets by farmers and access by consumers (Perez-Cassarino & Ferreira, 2013). Rover & Darolt (2021, p. 26) pointed to agroecology "as a field of study and action that encompasses the entire agri-food system, with the aim of achieving the food and nutritional sovereignty of society, from a perspective of integrating agriculture, food, health, environment, and education".

In this study, to analyze the geographical proximity between the places of production and consumption and the consequent valorization of local territories, the origin of the marketed products was used as a reference, considering the distance between the places of production and consumption, realizing if the food was produced inside or outside the territory where the consumption occurred.

2.3. Alternative agri-food networks and short food supply chains

Several movements have emerged against the dominant agri-food system that the literature has conventionally called alternative food networks (AFN). This is a broad term used to refer to emerging networks of producers, consumers, and other actors that seek food production and supply forms that are alternative to the industrial mode (Goodman, 2003; Renting et al., 2003). To Renting et al. (2003), AFNs are diverse and cover several

alternative dynamics of production-consumption, among which are short food supply chains (SFSCs). This concept is more specific and deals with interrelationships between actors who come close together in producing, processing, distributing, and consuming food products.

SFSCs seek to reduce the distance between the places of production and consumption, bringing producers and consumers closer relationally and geographically, promoting the cultivation of local species, and favoring food security through the easy sale of fresh and diversified products (Rover & Riepe, 2015). According to Darolt (2013), there is no official definition of SFSCs in Brazil, but two criteria are listed to characterize them in France:

1. the relational distance, when it exists, to an intermediary between producer and consumer; and
2. the spatial distance, which, in the case of France, was established at 80 km between the places of production and consumption (Chaffotte & Chiffolleu, 2007).

Darolt (2013) also presented the distinction of two types of short supply chains: direct sales, which occur from the hands of the producers to the consumer, and indirect sales, which take place through a single intermediary, a role that may be assumed by a producer, a cooperative, an association, or even specialized stores and restaurants, among others. According to Renting et al. (2003), SFSCs may be of three types:

1. face-to-face, creating relationships of trust by direct interaction between farmers and consumers;

2. spatial proximity, in which case consumers seek food at production sites or near the production regions; and

3. spatially extended, when the information on products and production sites are carried through the seals and certificates, even if there is a greater spatial distance between production and consumption.

The geographical proximity between producers and consumers facilitates the sale of food not marketed in conventional agri-food systems, promoting greater agrobiodiversity and farmer autonomy (Darolt et al., 2013). In addition, this proximity is advantageous for consumers, who may have access to cheaper products compared to supply chains with a more considerable presence of intermediaries, which add more value to the products (Darolt, 2013).

However, some short supply chains are spatially extended, built on a strong social and cultural rooting around the actors involved from production to consumption (Perez-Cassarino & Ferreira, 2013). In this sense, in this article, we used the distance of 200 km as a reference to indicate whether the products have a more local/regional or extra-local origin. Such a distance was established by LACAF for the construction of the map of the Agri-Food Citizenship Network of the metropolitan area of Florianópolis, which defined criteria that take into account the dynamization of forms of responsible supply, aiming to strengthen and expand relations in production-consumption networks (LACAF, 2020).

To Renting et al. (2003), SFSCs redefine producer-consumer relations beyond spatial shortening, giving clear signals about food quality attributes and building transparent chains where products reach consumers with a high information load. Accord-

ding to the authors, a fundamental characteristic of SFSCs is the ability to resocialize and respatialize food, so consumers make new value judgments about which food they prefer to consume based on their own knowledge or experience. Greater relational proximity generates new forms of the social construction of markets involving cooperative relationships, even when there is more significant spatial distancing (Gelbcke *et al.*, 2018). The greater relational approximation between farmers and consumers favors transparency in the processes and the exchange of information that allows new negotiation procedures between the actors, in which farmers adapt to the quality demands and consumers have more knowledge about the production process (Perez-Cassarino & Ferreira, 2013).

2.4. Direct sales by advance orders

In the marketing experiences researched, there is a specific type of SFSC, direct sales, and, within it, direct sales by advance orders (DSAOs). It takes place through the direct articulation between farmers and consumers, operationalized via the Internet, through which the advance orders of food baskets are made². Orders are home delivered or left at common delivery points where consumers pick up the baskets, according to each experience (Escosteguy, 2019).

One of the significant advantages of DSAOs is the guarantee of the sale through the advance order, thus enabling farmers to carry out production and logistics planning according to demand. There is

also a reduced risk of waste and less time used to make sales compared to other forms of direct sales, such as fairs (Escosteguy, 2019). According to the author, in DSAOs, farmers have the guarantee of knowing which and how many products will be sold even before harvest, and consumers have access to fresh, healthy, seasonal, and agrobiodiversity foods.

According to Darolt *et al.* (2016), this marketing modality is growing in Brazil and has won the sympathy of producers for its practicality and consumers for its lower price compared to supermarkets. However, the author highlighted that there is still little social engagement and organization of consumers in these marketing processes, an element that – at least in one of the studied experiences – was not observed.

3. Methodology

The research was exploratory and the data collected were qualitative and quantitative. They were collected from March to May 2020 and organized and analyzed from June to July in a two-case study. Case studies are empirical investigations that research a contemporary phenomenon within its actual context, especially when it is impossible to define the limits between the phenomenon and the context in which it is inserted (Yin, 2001). To the same author, case studies require a prior theoretical framework, and there are variables and categories of interest to the analysis that guide the data collection.

The experiences studied here are the RCGs supplied by the Associada farmer group, composed

² We consider the baskets of the RCGs as DSAOs even if closed (when the products that compose them are not chosen by the consumers), given that the consumers order the closed baskets in advance at the beginning of each new cycle, in addition to making the advance order of additional products each week.

of 12 families of farmers from five municipalities in Santa Catarina: Major Gercino, Angelina, Nova Trento, Leoberto Leal, and São João Batista. This group supplies four RCGs, three in Florianópolis and one in Canelinha, SC. The Ecoserra Agroecological Baskets occur in the municipality of Lages, where the headquarters of the Ecoserra Cooperative is located and where consumers reside. The farmers affiliated with Ecoserra are mostly from municipalities belonging to Amures (the association of residents of the mountain region).

In the experiences studied, the proximity between the actors involved was analyzed, highlighting the producer-consumer relations and considering relations between producers and intermediaries, intermediaries and consumers, and those between consumers, as well as the presence of partner institutions/entities. However, the analysis did not intend to reach in depth all the links of the production chain, understood as the sum of operations and transformations that occur in the products, from production to consumption, as discussed by Batalha (1997). The analysis focused on the relations established from production to the consumer in the forms of DSAO studied.

The methodological procedures used to collect primary data were participant observation and semi-structured interviews. Secondary data such as purchase and sale spreadsheets, lists of available products, and the monitoring of conversations in WhatsApp® groups were also used, from which document analysis was performed. Because the research was carried out amid the COVID-19 pandemic, it was impossible to reach a more significant

number of informants and expand the primary data collection. The participant observation took place in the two contexts studied, with the monitoring of the marketing processes in both in the first half of 2020. According to Minayo (2001), participant observation allows experiencing the reality of the social actors in their context.

Six interviews were conducted with key informants of the experiences. The interviews had open-ended questions³ and were carried out in person. Two interviews were conducted with Ecoserra Agroecological Baskets, one with an informant from the Ecoserra Cooperative, responsible for the marketing sector of the products, and the other with the coordinator of the Vianei Center, which operates with the marketing topic and advises Ecoserra. In the experience with the RCGs, four farmers from the Associada Group were interviewed, one being the coordinator in the experience.

As for secondary data, for the Ecoserra Cooperative, the list of products offered weekly, the list of consumer orders, and the data table with the weekly marketing volume and amounts were analyzed. For the RCGs supplied by the Associada Group, the lists of weekly products in the baskets and additional products, including the quantity marketed and the unit values, were analyzed. For the RCG of Saúde/UFSC specifically, the exchanges of messages among consumers in the WhatsApp® group were analyzed. Materials produced by LACAF/UFSC on the RCG project were also analyzed. The quantitative data were systematized with the help of Microsoft Excel® 2013 software.

³ This research is part of the project approved by the Human Research Ethics Committee of the UFSC, under number 2.657.160 and CAAE No. 2587718.0.0000.0121, complying with the protocols and guaranteeing the anonymity and safety of the participants.

The data analysis was substantiated by the literature presented in the theoretical framework. The two categories defined for analysis were the following:

a) the stimulus of the marketing experiences to the development of agroecology in the territories in which they operate;

b) the stimulus to proximity relations in the experiences and the profile of such relations. To assist in analyzing the categories, descriptors were used to help detail and better discuss them (Viegas, 2016).

In the light of the theory, to analyze the stimulus to agroecology, the descriptor diversity of the marketed products was established, discussing whether it would stimulate the agrobiodiversity of rural establishments. In turn, the following descriptors were established to analyze the stimulus to proximity relations:

i) relational proximity between the actors of the experiences (farmer/intermediary/consumer);

ii) geographical proximity from the place of production to that of consumption.

4. Results and discussions

4.1. A brief characterization of the researched experiences

The Responsible Consumer Groups (RCGs) began in 2017 and are part of a project of the Laboratory of Family Farming Marketing of the Federal University of Santa Catarina (LACAF/UFSC). The project seeks better markets for farmers and to

expand consumer access to organic food. LACAF acts as a mediator between groups of family farmers linked to the Ecovida Agroecology Network and consumer groups. At the time of writing, six groups of farmers participated in the experience, totaling 60 families who supplied more than 500 consumer families organized into 12 groups in the municipalities of Florianópolis and São José, Santa Catarina.

The dynamics of the RCGs occurred through the direct articulation between the group of farmers represented by the coordinator and the group of consumers through the Internet via WhatsApp®. The consumers would pay in advance the amount of the cycle (month), corresponding to a period of four to five weeks, and receive a fixed-size basket weekly, either small (approximately 4.5 kg) for R\$ 29.00 or large (about 9 kg) for R\$ 53.00. The baskets were "closed", given that the consumers did not choose the food they received; however, the farmers would commit themselves to offering a diversity of food types (leafy vegetables, legumes, fruits, roots, spices, teas, and grains) weekly. There was also a list of additional products from which the consumers could choose other available foods, a way to provide greater diversity and increase sales by the farmers of the Associada Group.

The Associada group supplied approximately 96 baskets per week, including consumer families and individual consumers (Table 1). The baskets were assembled and transported by the group coordinator and delivered to a common location for each RCG (Sharing Point), where each consumer would pick up their basket. The existence of the Sharing Point allows for reducing costs with food delivery logistics compared to individualized deliveries. The experience also provides for the joint organization of the entire marketing process between farmers and

consumers, with responsibilities for each group. In the following topics, we will present more details of the organization dynamics.

The Ecoserra Agroecological Baskets appeared in 2018 through a project by the Vianei Center for Popular Education in partnership with the Ecoserra Cooperative (Ecological Cooperative of Farmers, Artisans, and Consumers of the Mountain Region). The project aimed to work on the articulation between consumers and farmers in supply dynamics, together with the political incidence on food and nutrition sovereignty and security (FNSS). The Ecoserra Cooperative has a long history of operation in the Highlands of Santa Catarina, and since its foundation in 1999, it has aimed to seek marketing alternatives for small farmers from the region (Santos, 2006).

The Ecoserra Agroecological Baskets supplied about 110 consumers in Lages during the COVID-19 pandemic (Table 1). This number was approximately 50 consumers before the pandemic. The significant increase occurred due to the suspension of the fair held weekly by the Cooperative at the University of Planalto Catarinense (UNI-PLAC), with consumers migrating from this fair to the baskets. At the time of writing, the dynamic of the baskets worked from the articulation of the Cooperative with farmers and agribusinesses for the acquisition of the products and between the Cooperative and consumers for the sale of the baskets, both through the Internet (WhatsApp®/Email) and telephone. The Cooperative would intermediate by purchasing products from farmers in the mountain region and other state regions, as well as from the agribusinesses and companies in Santa Catarina, Rio Grande do Sul, and São Paulo. According to the

availability of products, Ecoserra would draw up a list made available to consumers weekly.

The baskets were "open", had no fixed price or weight, and consumers could choose the products in the weekly list, respecting only the minimum order of R\$ 25.00. The baskets were assembled by the employees of the Cooperative, and the consumers could choose between picking them up at the cooperative headquarters or receiving them at home for an additional fee of R\$ 5.00. This delivery was carried out by two deliverers outsourced by the cooperative. The baskets were paid at the time of delivery/pick-up, with exceptions. The participating consumers were either individuals or families from the urban area of Lages.

The data in Table 1 show that the volumes marketed and amounts obtained (R\$) were higher in the RCG relative to the Ecoserra baskets. This general difference may be linked to the fact that, although RCG baskets were "closed", they amplified the marketing of products to the same consumers by offering additional products and providing some large baskets, albeit to a smaller number of consumers. This contributed to increasing the average price and total amount marketed.

4.2. Agroecological principle and proximity relations

Relative to the diversity of products marketed, the categories of fresh products did not significantly differ between the experiences (Figure 1). Only the spices/teas category had a more significant diversity in the RCG (9), whereas, for the grain/cereals category, the diversity was more considerable in the Ecoserra baskets (4). In turn, among the agroindus-

TABLE 1 – Average organic food marketing data in short food supply chains of two experiences in Santa Catarina.

Marketing Data	Ecoserra Agroecological Baskets		RCG* Associada	
	Weekly	Monthly	Weekly	Monthly
No. of Farmers	23**		12	
No. of Consumers	110		96	
Average Price R\$/kg	5,92***		6,51****	
Average Total Volume of Products Marketed (kg)	464.170	1856.670	561.080	2244.300
Average Total Amount of Products Marketed (R\$)	2.745.83	10983.33	3654.96	14619.83
Average Volume of Products/Consumer (kg)	4.230	16.900	5.840	23.380
Average Amount of Products/Consumer (R\$)	24.96	99.84	38.07	152.29

Caption: *The data refer to the four RCGs supplied by the Associada Group. ** Main suppliers in quantity and regularity of the products that go into the baskets. *** Including the values of the products and the delivery fee. **** Calculated with the values of the baskets and the additional products.

NOTE: Data referring to six weeks: April 21 to May 28, 2020.

SOURCE: prepared by the authors (2020).

trialized products, the Ecoserra baskets stood out for the number of products marketed (40) compared to the RCGs (8). In addition, processed products accounted for 50% of the number of products in Ecoserra baskets and only 16% of products for the RCGs. From this, one may devise that the Ecoserra baskets used processed products to increase their product offer to consumers, increasing their total diversity. However, it is worth noting that 27.5% of the products in Ecoserra baskets traveled over 200 km (Table 2), with 90% being processed, thus evincing that many of these products came from more distant regions.

If analyzed in relation to Table 1, the data in Figure 1 make way for questioning the distribution of the monetary values generated in the experience of Ecoserra baskets. The 23 farmers connected to the Cooperative mostly produced fresh products,

corresponding to 50% of the items in the baskets. Since processed products have a higher added value, the farmers connected to the Cooperative received a lower percentage of the composition of the total average amount of marketed products.

Considering the total number of fresh products, the diversity between the two experiences had no significant difference. However, the Associada Group had 12 farmer families, about 50% of the number of farmers supplying Ecoserra (23). With this, there was a probability⁴ of a more significant diversity at the production units of the farmers in the Associada Group than those that supplied the Ecoserra baskets. This more significant diversity could be due to the baskets being "closed" and with the guarantee of a variety of fresh products to be delivered weekly, given that the farmers of the Associada Group carried out joint planning and a

⁴ Because the research was conducted amid the COVID-19 pandemic, it was impossible to verify the agrobiodiversity with the production units.

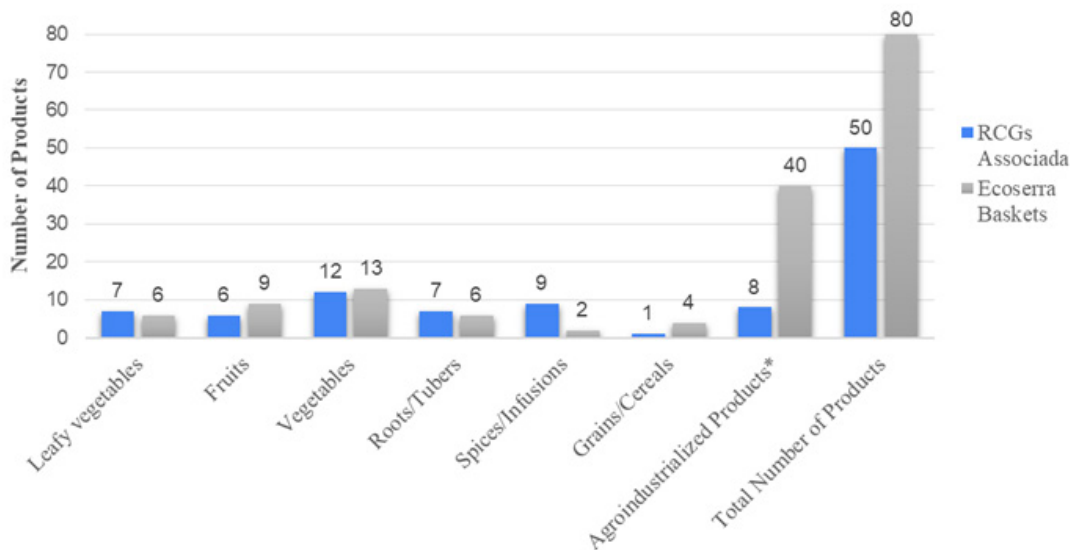


FIGURE 1 – Diversity and the number of products marketed in both cases by categories and the total number of products (April and May 2020).
 CAPTION: *This category includes a diversity of processed products such as cookies, flours, jams, sugars, juices, wines, preserves, bread, free-range chicken, serrano cheese, extracts and sauces, frozen products, and hominy, among others.
 SOURCE: prepared by the authors (2020).

division of the products to be grown by them. Thus, each farmer planted what they wanted, but for the baskets, they entered into a good sense of each one providing what they most produced (Farmer 2, RCG). This corroborates Darolt (2013), who stated that, in SFSCs, farmers adapt their agricultural practices, types of products, and production volumes to meet consumer demands. In addition, the fact that consumers did not choose the products in the basket gave farmers more autonomy in selecting crops and stimulated a greater diversity of cultivated species according to seasonality and to meet the minimum variety required by the RCG. This is a critical aspect to stimulate diversification and agroecology since

even species unknown to consumers and seasonal and local foods were marketed (Escosteguy, 2019).

In turn, for Ecoserra, in which case the baskets were "open", the cooperative purchased from farmers and agribusinesses according to the demand of consumers and other markets in which it operated (PAA/PNAE/Fair)⁵; however, there was no guarantee of minimum diversity. According to cooperative Employee 1, they only managed to have some control and monitoring of production since they communicated with producers to learn which products would be available within 15 or 30 days or to market seedlings in partnership with the Vianei Center. This demonstrates a weakness in the planning and organization of the cooperative that

⁵ Programa de Aquisição de Alimentos (PAA, Food Purchase Program); Programa Nacional de Alimentação Escolar (PNAE, National School Feeding Program).

may affect the regularity, quantity, and diversity of supply of products for the baskets, and a non-stimulus for the production diversification of the farmers, in addition to ignorance and non-creation of new eating habits by consumers. This factor could promote a productive specialization in the production units so that farmers maintain a minimum degree of agrobiodiversity (Rover & Riepe, 2015).

It was observed that just over half (52.5%) of the products marketed by Ecoserra baskets originated in the territory, which may indicate a lower agrobiodiversity among its farmers. To meet the demand of its consumers, the cooperative searched for products of more distant origins, particularly processed ones, also because it had cooperative members in other regions of the state of Santa Catarina beyond the mountain region. Moreover, the Ecoserra Cooperative has existed for over 20 years and established commercial exchanges and partnerships⁶ with various agribusinesses and other cooperatives, enabling a greater availability of agroindustrialized products. Thus, it offers consumers a varied range of processed products, from flours, sugars, and jams, to juices and wines.

The data in Table 2 refer to a discussion about the geographical proximity and valorization of the local/regional territory, discussed here through the distance traveled by the products from production to consumption. As one may observe, 47.5% of Ecoserra basket products originated outside the territory, considered here as the Amures region⁷; in

turn, for the RCGs, for which the territory considered was the metropolitan area of Florianópolis⁸, this figure was only 4%. In addition, when considering the distance traveled according to the road route, 27.5% of the products of the Ecoserra baskets traveled a distance greater than 200 km, while none of the products exceeded this distance for the RCGs.

It is worth mentioning that several commercial exchanges promoted by Ecoserra were with other organizations representing agroecological-based family farming certified by the Ecovida Network, even if they came from other territories. Another point is the issue of seasonality: for being in the mountainous region, Ecoserra seeks to complement its diversity with foods that cannot be grown in the region and have production challenges in the winter period, leading it to have associates in other areas of the state.

However, some commercial exchanges occur with companies not linked to family farming or participatory certification and from more distant regions, as is the case with some products that come from São Paulo, traveling 700 km to 1000 km. At the time of writing, only a smaller part of the products came from these longer supply chains, which were used by Ecoserra to complement the diversity but brought the risk of prioritizing these supply chains with more intermediaries and greater distancing from local markets. This prioritization of long supply chains was observed by Viegas *et*

⁶ The Ecoserra Cooperative has already participated in the Southern Marketing Circuit of the Ecovida Agroecology Network; based on the circulation of food between centers of the Ecovida Network through its organizations such as associations and cooperatives, it aims to expand the offer of products and supply the farmer families themselves. It has several routes among the three states of the Southern Region (Perez-Casarinio & Ferreira, 2013). At the time of writing, the Cooperative was no longer part of the Circuit but maintained commercial exchanges and partnerships with several cooperatives, associations, and agribusinesses in SC and RS.

⁷ Amures (Association of Residents of the Mountain Region) covers 18 municipalities in the mountainous region of Santa Catarina, where most of the Ecoserra associates were, about 90% of them, according to Employee 1 of the cooperative.

⁸ Region covering all the municipalities of the farmers of the Associada Group, as well as the consumers of the RCG.

TABLE 2 – Origin of the products marketed relative to the territory and the distance traveled between the places of production and consumption (Data for April and May 2020).

Origin of the Products	Ecoserra Agroecological Baskets		RCG Associada Group*	
	No. of Products	Percentage (%)	No. of Products	Percentage (%)
From the Territory**	42	52.5	48	96
From Outside the Territory	38	47.5	2	04
Distance ≤ 200 km***	58	72.5	50	100
Distance > 200 km	22	27.5	0	0

CAPTION: * Data from the four groups supplied by the Associada group were used. ** The Amures region was considered the territory for the Ecoserra baskets and the metropolitan area of Florianópolis for the Associada RCG; *** Distance estimated through the road route. SOURCE: prepared by the authors (2020).

al. (2017) in other marketing channels of organic products in the metropolitan area of Florianópolis.

The fact that the RCGs had a low percentage (4%) of products from outside the territory and no product traveling more than 200 km (Table 2) reveals a more considerable valorization of the local territory and priority of exchanges with nearby farmer groups, as reported by Farmer 1, who stated that they maintain commercial exchanges to ensure diversity but that they were made with nearby farmer groups and the Ecovida Network. In addition, as observed by Pugas (2018), the greater geographical proximity of consumption centers is a component that favors productive agrobiodiversity.

Gelbke *et al.* (2018) pointed out that a large part of the fresh organic products marketed in Florianópolis come from nearby municipalities, while processed products come from more distant regions. This is what was observed in the RCGs, given that most of their products were fresh, considering that the group of farmers did not have expressive processing of products, there was no complementarity with products coming from outside, and the closed basket modality prioritized fresh products.

Another key principle of short supply chains, in addition to geographical proximity, is relational proximity. Here, we adopted the notion of SFSCs as having up to one intermediate between production and consumption (Chaffotte & Chiffolleu, 2007). In this paper, we did not consider the Ecoserra Cooperative and the coordination of the group of farmers of the RCGs as intermediaries since they were believed to be organizations of the farmers themselves, facilitators of the marketing processes, as observed by Rover & Riepe (2015). Thus, there was only the presence of intermediaries when organizations purchased products from other agribusinesses and other groups of farmers and, in the case of Ecoserra, from non-associates. In the rest of the cases, the experiences studied promoted forms of direct sales.

Table 3 shows a synthesis of the relationships between the actors present in the experiences. Regarding the farmers, it was observed that there was a more significant approximation between the RCG farmers since it is only one group, resulting in more frequent contacts due to the monthly meetings they held and the weekly delivery of products and assembly of baskets, which allowed additional

contact between them and the group coordination. In Ecoserra, this relationship was not so close since there were several groups of farmers and even from different microregions, with relationships being more restricted to those within groups and not between them. This reduced communication among Ecoserra farmers could affect their active participation in the dynamics of the baskets, on the one hand, but, on the other hand, could enable access to a more significant quantity and diversity of products, even if this was not observed at the time of this study.

The relationship between farmers and consumers did not occur for Ecoserra baskets, not even through the Internet. Farmers sold and negotiated the prices of their products directly with Ecoserra, which, according to Employee 1, carried out the payments according to the quantity and quality of the products. Ecoserra, in the person of its employee, was the one who established the sales prices of the products in the baskets and who had direct contact with consumers. In this sense, it was observed that it was an experience that promoted the sale of farmers to consumers within the same territory (spatial proximity); however, when the relationships effectively produced between the parties were analyzed, one may state that the experience achieved little relational proximity, at least in the face-to-face modality. This restricts the possibility of advancing in the construction of joint actions between farmers and consumers.

In the RCGs, there was a more direct relationship between consumers and the coordination of the group of farmers because it was through it that additional orders, payments by consumers, the organization of basket deliveries, and the clarification of doubts about the products were made, with there being constant exchanges of messages in the

WhatsApp® group. The prices of the additional products were set collectively by the group of farmers, either because there was a fixed price for the baskets or because they collectively set the prices of the additional products. Another important moment of interaction between farmers and consumers in the RCGs was when there were visits to production units before the COVID-19 pandemic.

One of the main differences between the two marketing experiences was the organization of consumers. For the Ecoserra baskets, the consumers were individuals and had no relationship or exchange of information with each other. Even in interactions that occurred via WhatsApp®, there was no exchange between consumers since the group constituted in the social network for this purpose did not allow the exchange of messages between them, only the firing of messages by the Cooperative employee. With this, the relations were restricted to each individual consumer and Ecoserra, in the person of its employees, and focused only on commercial exchanges. In addition, the basket home deliveries were made mainly by third parties for a fee of R\$ 5.00, which on the one hand, generated more convenience but, on the other hand, led to an increase in costs and exempted consumers from any responsibility or approximation with other consumers or with the farmers, or even some face-to-face moment with the cooperative, also generating a work overload for its employees. In the RCGs, there was a Term of Shared Responsibilities that was assumed by farmers and consumers, through which a more considerable organization and an active role of consumers was sought. A coordination of consumers was established for their better organization (which was responsible for articulating visits to farmers and organizing donations to groups in situations of so-

TABLE 3 – Synthesis of the existing relationships between the actors involved in the dynamics of marketing of organic/agroecological food in short food supply chains of the RCGs and Ecoserra baskets in SC.

ACTORS INVOLVED	EXISTING RELATIONSHIPS	
	Ecoserra Agroecological Baskets	RCG Associada Group
Partner Institutions ⁹	<ul style="list-style-type: none"> – Vianei Center: consulting, project support, contact with entities; – IFSC: support of faculty, consumers; – CISAMA: technical assistance, project support, adequacy; – Agribusinesses: purchase and sale of products; – CEMEAR: commercial and project partnership; – Ecovida Network: certification, exchange of goods and experiences between groups. 	<ul style="list-style-type: none"> – LACAF/UFSC: farmer-consumer articulation, technical support, organizational facilitator, activities carried out by scholarship holders and volunteers; – Cepagro/Epagri: ATER¹⁰; – Department of Agriculture of Major Gercino: financial and productive support; – Ecovida Network: certification, exchange of goods and experiences between groups.
Farmers	<p>Belong to several groups of the Ecovida Network. The groups do not have close relationships with each other, but the relationships between farmers within each group are closer. The relationship between farmers and the Ecoserra Cooperative occurred through the purchase of inputs, sale of products, negotiation of prices, and meetings.</p>	<p>They belonged to only one group of the Ecovida Network and had greater proximity, monthly meetings, production planning, and exchange of experiences in the WhatsApp® group.</p>
Farmer-Consumer	<p>There was no relationship between farmers and consumers.</p> <p>The relationship between the cooperative and consumers was restricted to placing orders, payments, and deliveries.</p>	<p>Relationship between the coordinator of the group of farmers and consumers: orders, payments, delivery/pick up of baskets, and additional products. Relationship of consumers with other farmers through visits to properties.</p>
Consumers*	<p>Individual consumers and there was no exchange of information between them through WhatsApp groups or other types of relationships.</p>	<p>There was a consumer group and the exchange of information through the WhatsApp® group, meetings, visits to farmers, and mediation of problems, -coordination of consumers, and organization of donations to vulnerable groups.</p>

Caption: *For reasons of research logistics, we analyzed the existing relationships between consumers of the RCG of Saúde/UFSC and not of all the RCGs supplied by the Associada Group.

SOURCE: prepared by the authors (2020).

⁹ Instituto Federal de Santa Catarina (IFSC, Federal Institute of Santa Catarina) – Lages campus; Consórcio Intermunicipal Serra Catarinense (CISAMA, Santa Catarina Mountain Range Intermunicipal Consortium); Centro de Motivação Ecológica e Alternativas Rurais (CEMEAR, Center for Ecological Motivation and Rural Alternatives); Centro de Estudos e Promoção da Agricultura de Grupo (Cepagro, Center for the Study and Promotion of Group Agriculture); Empresa de Pesquisa Agropecuária e Extensão Rural de Santa Catarina (Epagri, Agricultural Research and Rural Extension Company of Santa Catarina);

¹⁰ Technical Assistance and Rural Extension.

cio-economic vulnerability). In addition, an intense exchange between consumers was generated in the WhatsApp® group about better use, recipes, information, and curiosities about the foods marketed. The baskets were picked up at a common location, which made it possible to interact with each other and exchange food that did not meet the expectation of one consumer or another, thus reducing losses. As pointed out by Escosteguy (2019), these relationships allow greater collective engagement of consumers, favoring changes in eating habits and the narrowing of relationships between them, rendering them active in the organizational dynamics. However, like the author, we observed numerous challenges in the more significant participation and collective engagement of consumers, with an overload of responsibilities on a few of them.

5. Conclusions

This article comparatively analyzed two experiences of marketing organic food baskets. We sought to understand how their organization stimulated the agroecological principle of agrobiodiversity and key elements of short food supply chains. Relative to agrobiodiversity, the diversity of marketing of fresh products of the two experiences was significant and in similar quantities. The diversity of processed products of the Ecoserra baskets was more significant than that of the RCGs and represented a high participation of these items in the total diversity. This is beneficial due to the diversity of supply to consumers; however, many of such products were from regions outside the territory and from organizations not linked to family farming, demonstrating a lower stimulus to

geographical proximity. In this regard, the RCGs generated a production-consumption relationship that was geographically closer and with more significant relational proximity. They had more significant activity of the farmers themselves in the experience and, especially, of the consumers, who comparatively had a more active role. The Ecoserra Cooperative sought to facilitate the marketing of the products of the associated farmers in articulation with new markets and had an extensive network of contacts and partnerships; however, in the studied modality of the baskets, it generated little space for participation for farmers and consumers.

Both experiences had the potential to offer a diversity of products to consumers. However, both, especially the Ecoserra baskets, faced challenges in qualifying the approximation between production and consumption, the accountability, engagement, and the active role of consumers.

More significant support from the public authority is needed through public policies that can expand these organic/agroecological SFSC initiatives to a more substantial portion of the population and a part with a lower purchasing power, democratizing access to these products. If duly strengthened, institutional purchases, such as those of the PAA and PNAE, would fulfill this function.

The need for more in-depth research directly with farmers and consumers is highlighted, seeking to understand their perception of the marketing experiences, given that this was not possible in the present study due to the COVID-19 pandemic.

References

Altieri, M.; Nicholls, C. Agroecología: única esperanza

- para la soberanía alimentaria y la resiliencia socioecológica. *Agroecología*, 7(2), 65-83, 2012.
- Batalha, M. *Gestão agroindustrial*. São Paulo: Atlas, 1997.
- Chaffotte, L.; Chiffolleau, Y. Vente directe et circuits courts: évaluation, définition et typologie. *Les Cahiers de l'Observatoire CROC*, 1, 1-8. 2007.
- Dal Soglio, F. A agricultura moderna e o mito da produtividade. In: Dal Soglio, F.; Kubo, R. R. (Orgs.). *Desenvolvimento, agricultura e sustentabilidade*. Porto Alegre: Editora da UFRGS, 2016. p. 11-38.
- Darolt, M. R. Circuitos curtos de comercialização de alimentos ecológicos: reconectando produtores e consumidores. In: Nierdele, P. A.; Almeida, L.; Vezanni, F. M. (Orgs.). *Agroecologia: práticas, mercados e políticas para uma nova agricultura*. Curitiba: Kairós, 2013. p. 139-170.
- Darolt, M. R.; Lamine, C.; Brandenburg, A. A diversidade dos circuitos curtos de alimentos ecológicos: ensinamentos do caso brasileiro e francês. *Experiências em Agroecologia*, 10(2), 8-13, 2013.
- Darolt, M. R.; Lamine, C.; Bradenburg, A.; Alencar, M. de C. F.; Abreu, L. S. Redes alimentares alternativas e novas relações produção consumo na França e no Brasil. *Ambiente & Sociedade*, 2(19), 2016. doi: 10.1590/1809-4422ASO-C121132V1922016
- Escosteguy, I. L. *Inovações sociais na promoção da agroecologia e de redes de civismo agroalimentar em Florianópolis-SC*. Florianópolis, Dissertação (Mestrado em Agroecossistemas) – UFSC, 2019.
- FAO – Food and Agriculture Organization. *The 10 elements of agroecology: guiding the transition to sustainable food and agricultural systems*. Rome: FAO, 2018. Disponível em: <<http://www.fao.org/3/i9037en/I9037EN.pdf>>. Acesso em: 25 jun. 2020.
- Gelbcke, D. L.; Rover, O. J.; Brightwell, M. G. S. L.; Silva, C. A.; Viegas, M. T. A “proximidade” nos circuitos de abastecimento de alimentos orgânicos da Grande Florianópolis – SC – Brasil. *Estudos Sociedade e Agricultura*, 26(3), 539-560, 2018. doi: 10.36920/esa-v26n3-3
- Goodman, D. The quality ‘turn’ and alternative food practices: reflections and agenda. *Journal of Rural Studies*, 19(1), 1-7, 2003. doi: 10.1016/S0743-0167(02)00043-8
- LACAF – Laboratório de Comercialização da Agricultura Familiar. *Mapa da Rede de Cidadania Agroalimentar (RCA) da Grande Florianópolis*. 2020. Disponível em: <<https://lacaf.paginas.ufsc.br/mapa-da-rede-de-cidadania-agroalimentar-rca-da-grande-florianopolis/>>. Acesso em: jul. 2020.
- Machado, L. C. P.; Machado Filho, L. C. P. *A dialética da agroecologia: contribuição para um mundo com alimentos sem veneno*. São Paulo: Expressão Popular, 1. ed., 2014.
- Minayo, M. C. de S. (Org.). *Pesquisa social: teoria, método e criatividade*. 18 ed. Petrópolis: Vozes, 2001
- Perez-Cassarino, J. P.; Ferreira, A. D. D. Agroecologia, construção social de mercados e a constituição de sistemas agroalimentares alternativos: uma leitura a partir da Rede Ecovida de Agroecologia. In: Niederle, P. A.; Almeida, L.; Vezanni, F. M. (Orgs.). *Agroecologia: práticas, mercados e políticas para uma nova agricultura*. Curitiba: Kairós, 2013. p. 171-214.
- Pugas, A. S. *Agroecologia e comercialização de alimentos: qual agrobiodiversidade e qual autonomia aos agricultores? Florianópolis*, Dissertação (Mestrado em Agroecossistemas) – UFSC, 2017.
- Renting, H.; Madsen, T.; Banks, J. Understanding alternative food networks: exploring the role of short food supply chains in rural development. *Environment and Planning*, 35, 393-411, 2003. doi: 10.1068%2Fa3510
- Rover, O. J.; Riepe, A. D. J. A relação entre comercialização de alimentos e princípios agroecológicos na rede de cooperativas de reforma agrária do Paraná/Brasil. *Desenvolvimento e Meio Ambiente*, 38, 663-682, 2015. doi: 10.5380/dma.v38i0.41984
- Rover, O. J.; Darolt, M. R. Circuitos curtos de comercialização como inovação social que valoriza a agricultura familiar agroecológica. In: Darolt, M. R.; Rover, O. J. (Orgs.) *Circuitos curtos de comercialização, agroecologia e inovação social*. Florianópolis: Estúdio Semprelo, 2021. p. 19-43. Disponível em: <https://repositorio.ufsc.br/handle/123456789/229738>. Acesso em: out. 2022.
- Santos, H. L. *Construção social de mercado orgânico: o caso da Cooperativa Ecoserra na Serra Catarinense*. Flo-

Florianópolis, Dissertação (Mestrado em Agroecossistemas)
– UFSC, 2006.

Viegas, M. T. *Agroecologia e circuitos curtos de comercialização num contexto de convencionalização da agricultura orgânica*. Florianópolis, Dissertação (Mestrado em Agroecossistemas) – UFSC, 2016.

Viegas, M. T.; Rover, O. J.; Medeiros, M. Circuitos (não tão) curtos de comercialização e a promoção de princípios agroecológicos: um estudo de caso na região da Grande Florianópolis. *Desenvolvimento e Meio Ambiente*, 42, 370-384, 2017. doi: 10.5380/dma.v42i0.50759

Yin, Robert K. *Estudo de caso, planejamento e métodos*. São Paulo: Bookman, 2. ed., 2001.