

Alternative food networks in the metropolis of São Paulo: proximity movements between farmers and consumers in pandemic times

Redes alimentares alternativas na metrópole de São Paulo: movimentos de proximidade entre agricultores e consumidores em tempos de pandemia

Redes alimentarias alternativas en la metrópoli de São Paulo: movimientos de proximidad entre agricultores y consumidores en tiempos de pandemia

Natália Cheung¹, Lucimar Santiago de Abreu², Adriana E. Sanjuan Montebello³

¹ Mestre em Agroecologia e Desenvolvimento Rural pela Universidade Federal de São Carlos, SP. Trabalhadora associada ao Instituto Chão, São Paulo, SP. Orcid: 0009-0001-5260-6632, e-mail: naticheung@gmail.com.

² Pesquisadora da EMBRAPA Meio Ambiente, Jaguariúna, Brasil. Doutora em Ciências Sociais pelo Instituto de Filosofia e Ciências Sociais da Unicamp, Campinas, Brasil. Orcid: <https://orcid.org/0000-0002-2787-3448>, e-mail lucimar.abreu@embrapa.br.

³ Docente do Programa de Pós graduação em Agroecologia e Desenvolvimento Rural da Universidade Federal de São Carlos- SP. Doutorado em Economia Aplicada pela Universidade de São Paulo. SP. Orcid: <https://orcid.org/0000-0003-2822-6434>, E-mail: adrianaems@ufscar.br.

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Abstract

A significant growth of initiatives in alternative food networks has been generating new relations of production, distribution and consumption. With the Covid-19 pandemic, the urgency of transforming agrifood systems in favor of more sustainable practices became evident. This article presents an analysis of the qualitative changes in the relationship of proximity and shared values between farmers and consumers in organic food chains in the city of São Paulo. The field research included semi-structured interviews with farmers from organic cooperative and structured questionnaires with consumption from responsible consumption groups. The commercialization was impacted specifically during the most critical phase of Covid; however, this period brought innovations in the ways of producing production and relationships with consumers, through the donation of food to people in food insecurity, combined with the generation of income for farmers. If, on the one hand, the pandemic limited physical proximity in alternative food networks, on the other, it generated a greater awareness of the importance of healthy eating, and its interrelationship with Agroecology and human, animal and environmental health.

Keywords: organic food, short food supply chains, sustainable food systems, relational proximity.

Resumo

O crescimento de iniciativas em redes alimentares alternativas tem gerado novas relações de produção, distribuição e consumo. A pandemia da Covid-19 evidenciou ainda mais a urgência da transformação de sistemas agroalimentares em prol de práticas sustentáveis. O artigo apresenta uma análise das mudanças qualitativas na relação de proximidade e nos valores compartilhados entre agricultores e consumidores de alimentos orgânicos da cidade de São Paulo. A pesquisa de campo incluiu entrevistas semiestruturadas com agricultoras de uma cooperativa de orgânicos, e questionários estruturados com consumidores de dois grupos de consumo responsável. A comercialização foi impactada pontualmente na fase mais crítica da Covid, entretanto, esse período trouxe inovações nas formas de escoamento da produção e de relacionamento com os consumidores, por meio da doação de alimentos para pessoas em insegurança alimentar, aliada à geração de renda para os agricultores. Se por um lado a pandemia limitou a proximidade física nas redes alimentares, por outro gerou uma maior conscientização sobre a importância da alimentação saudável, e sua inter-relação com a Agroecologia e a saúde humana, animal e ambiental.

Palavras-chave: alimentos orgânicos, circuitos curtos, sistemas alimentares sustentáveis, proximidade relacional.

Resumen

El importante crecimiento de iniciativas en redes de alimentos alternativos ha generado nuevas relaciones de producción, distribución y consumo. Con la pandemia de Covid-19, se hizo evidente la urgencia de transformar los sistemas agroalimentarios en favor de prácticas más sostenibles. Este artículo presenta un análisis de los cambios cualitativos en la relación de proximidad y valores compartidos entre agricultores y consumidores en cadenas de alimentos orgánicos en la ciudad de São Paulo. Se realizó una revisión de la literatura y una investigación de campo, que incluyó entrevistas semiestruturadas con agricultores de una cooperativa orgánica y cuestionarios estructurados con dos redes de consumo responsable. La venta de productos orgánicos se vio impactada específicamente durante los meses más críticos del Covid-19, sin embargo, este período trajo innovaciones en las formas de transportar la producción y estar en contacto con los consumidores. Si, por un lado, la pandemia limitó la proximidad física en las redes alimentarias alternativas, por otro, generó una mayor conciencia sobre la importancia de la alimentación saludable, y su interrelación con la Agroecología y la salud humana, animal y ambiental.

Palabras clave: alimentos orgânicos, corto circuitos, sistemas alimentarios sostenibles, cercanía relacional.

INTRODUCTION

In March 2020, the advent of the Covid-19 pandemic brought abrupt and tragic changes to Brazilian society. The infectious disease is transmitted by the SARS-CoV-2 virus and, like many other zoonoses that have emerged in recent decades, its origins are intrinsically linked to a socio-environmental crisis that, in turn, reflects the serious consequences of our hegemonic agrarian development model of the 20th and 21st centuries (UNEP, 2020).

In parallel with this context, the consumption of healthy and organic foods in the metropolis of São Paulo has intensified with new alternative food networks being created, not only due to the challenge of meeting a growing demand, but also as a union for solidarity, with the objective to deliver food to people in socially vulnerable situations.

This article aims to understand the qualitative changes in the relationship of proximity and shared values between farmers and consumers in organic food networks in the city of São Paulo during the pandemic. Throughout this article, some terms related to Agroecology and organic agriculture will be used, such as “agroecological” and “organic” foods. From the normative point of view of the 2003 Brazilian Law No. 10,831 (Brasil, 2003), the organic production systems can include other types of food production, known as agroecological, biodynamic, biological, ecological, natural, among others, as long as they comply with the principles established by said law. In this sense, in addition to the use of renewable technologies and the preservation of agroecosystems, the cultural integrity of rural communities, social equity, and the economic sustainability of local agricultural systems are valued (Abreu *et al.*, 2015).

To make up the theoretical framework, a bibliographic review was carried out from the perspective of Agroecology, approaching materials in light of the themes of alternative food networks, short food circuits, local markets and family farming.

Despite the undeniable growth of the Brazilian organic products market in the last decade, numerous studies indicate that its development – when exclusively oriented towards obtaining greater economic profitability – implies the commercialization of food through conventional distribution systems in long circuits, mainly benefiting large supermarket chains (Goldberger, 2011).

In a survey from Organizações Rurais Brasileiras (2019), conducted in the five regions of the country, of the total of 1027 interviews, 81% of people stated that they had not consumed organic food in the last thirty days. When asked why they did not consume it or did not consume it in greater quantities, the main answers were: “prices” (50%), “difficulty in finding it” (23%), “lack of habit” (7%) and “lack of knowledge” (4%). Among the people interviewed who already consume organic food, most of them buy it at fairs (87%), followed by supermarkets (61%). In fact, access to organic food for the general population is still restricted, and there are few public policies to promote production and consumption in the country.

It is noted that current consumer habits in large cities generally result from the search for convenience and practicality in shopping, often leading them to supermarkets. In addition to the high final price perceived by the consumer, supermarkets are considered the worst sales channel by many organic farmers. This is due to the low prices received for food and contracts that provide little autonomy in decisions regarding production planning and marketing. Alternatively, sales at street fairs bring a series of opportunities to producers, such as higher profit margins, incentives for production diversification, reduced risks in guaranteed sales, autonomy and financial independence (Oliveira; Marjotta-Maistro, 2016; Watanabe; Abreu; Luiz, 2020).

The low level of autonomy present in long marketing channels is, furthermore, translated in the field by a simplified production system specialized in few varieties of food. According to Rover and Riepe (2016), this contradicts the key principle of the organic systems approach, which is to build and preserve productive diversity. In these cases, there is pressure on organic production units to specialize and expand their scale,

generating dependence on inputs and marketing channels, very similar to conventional forms of agriculture.

Another previous research developed in three cases in China, Egypt and Brazil (Oelofse *et al.*, 2011) already pointed to this problem and shows in its results that the adoption of organic agriculture has induced changes in the choice of production system practices, although the practices adopted do not always correspond to the recommended organic principles. It is concluded that the transition process to organic farming was strongly dependent on the type of support available to farmers (social organization, technical and governmental support, etc.). Organic farming based on a contract farming model (selling to middlemen and supermarkets) resulted in being an option available only to a restricted group of farmers, while organic farming associated with a farmers' cooperative provided better development.

Therefore, producers are increasingly resorting to alternative forms of marketing due to the growing consolidation of large retail chains, the conventional dynamics established in the relationships between producers and retailers, and the limitations imposed by health and regulatory barriers (Wilkinson, 2010).

Wang *et al.* (2015) relate the origin of alternative food networks as a response to crises of confidence in the food system or supply crises. They emphasize that AFNs have the potential to promote the reconnection between people and food, and the reinsertion of these foods into social and geographical relations.

Renting, Marsden and Banks (2003) characterize alternative food networks as short marketing circuits, with opportunities for consumers to connect with producers, enabling the purchase of fresher, safer and tastier food, whose origin is known and reliable. The authors also highlight the importance of AFNs in “re-spatializing” food, in order to reconnect these social actors in a food system.

Another aspect that is often related to these networks is the notion of local and regional food. The debate about what is local or regional is mainly focused on the distance

between production and consumption, although its definition varies according to different authors and locations (Paül; Mckenzie, 2013).

Short food circuits are those that mobilize up to a maximum of one intermediary between the producer and the consumer, with the possibility of direct sales (the farmer delivers the product to the consumer, such as at fairs, producer association stores, public purchasing programs) or indirect sales (intervention of a single intermediary between producer and consumer, such as specialized stores, small markets and virtual stores) (Darolt *et al.*, 2016). However, the issue of the number of intermediaries cannot be the only requirement to be analyzed, since, in this regard, it is reiterated that in a short circuit, power relations within the food chain must be in favor of producers and consumers and not intermediaries and large distributors (Guzmán *et al.*, 2012).

For Darolt *et al.* (2016), alternative food networks are very diverse and dynamic, and represent a social, economic and environmental option for family farming, since they strengthen local markets and bring producers and consumers closer together. In the case of experiences studied in Brazil and France, successful AFN initiatives occur in places where there is coordination between stakeholders in the food system, such as government, social organizations of producers and consumers (associations, cooperatives) and third sector institutions.

Other terminologies for this concept are also found in the scientific literature, such as the so-called proximity markets. In addition to geographical proximity (short distance traveled by the product until it reaches the consumer), there is a greater relational proximity between farmers and consumers. This favors a democratization of access to food and allows the existence of unique characteristics such as solidarity, affection, exchange of knowledge and establishment of trust (Model; Denardin, 2014).

Some French researchers analyze the relationship between producers and consumers in short circuits based on the socioeconomic approach of proximity, which distinguishes several different types of proximity. For them, geographic proximity is the most striking characteristic of these circuits, however, its activation requires the organization of the

relationship between the actors involved. This organization can be facilitated by a mediation device or by the establishment of interpersonal relationships. In the first case, mediation proximity refers to the possibility of interaction between the actors through a mediation resource, such as the Internet. In turn, relational proximity occurs when there is a direct or indirect relationship between them (Ugaglia *et al.*, 2021).

It is understood that the possibility of getting to know the customer and exchanging information encourages family farmers to improve their production processes. Quality, health and availability standards can be shared with consumers, in order to encourage the redefinition of their eating habits and raise awareness about the specificity of organic food production, influenced by seasonality and climate (Perez-Cassarino; Ferreira, 2013).

In the city of São Paulo, in addition to the already established organic markets, other types of alternative food networks associated with short circuits have emerged in recent years. Here are some examples: CSA São Paulo, a community that supports agriculture; specialized stores that follow principles of fair trade, equal rights and solidarity economy, such as *Instituto Chão*, *Instituto Feira Livre* and *Instituto Barú*; *Armazém do Campo*, a store that sells food produced by the Landless Workers Movement (MST in the acronym in Portuguese); the women's collective of the Urban Agroecology Group (GAU); and the Network of Responsible Consumption Groups of São Paulo.

Ugaglia *et al.* (2021) discuss about the 186 short-circuit or local food circuit initiatives that emerged in France in the first months of lockdown in 2020. For these authors, the food crisis and temporary travel restrictions have undoubtedly revealed the capacity of these initiatives and their actors, through collective action, to bring about innovations in developing new ways of distributing food in the territories. However, they question the ephemerality of these new organizations, whether they were temporary responses to the crisis or whether there are plans to institutionalize them. They also argue about their capacity to remain sustainable and viable in the long term, in the face of organizational, logistical and land-related difficulties, in order to leverage a transformation of the dominant food system.

The article aims to: (1) characterize the experience of an organic farmers' cooperative based in São Paulo during the pandemic, evaluating how this initiative contributed to the population's access to safe and healthy food, and which paths have been chosen to generate greater proximity between consumers and producers; (2) obtain a profile of consumers who access organic foods through AFNs (Alternative Food Networks), including an analysis of changes in eating habits during the pandemic, as well as the motivations and subjective values that make them choose this type of consumption; (3) analyze the dynamics of relational proximity provided by alternative networks, verifying to what extent they contribute to a broad understanding of food systems and awareness regarding sustainable practices in agriculture and their importance for human, animal and environmental health.

METHODOLOGY

Max Weber's comprehensive sociology approach was the underlying source of inspiration for the design of the methodological steps of this study, adhering to the Weberian principle that social action in its subjectivity is provided with sociocultural and economic meanings and values (Weber, 2004).

Our theoretical assumption is based on the fact that addressing the decisions and actions of farmers and consumers by simply considering the economic logic of the functioning of production units does not capture the rationality of empirical cases, since these decisions are generally associated with environmental, social, cultural aspects and objective conditions of institutional support. It is necessary to analyze the multiple factors of the social and economic life of the actors (Abreu, 2005).

The study was developed on two fronts: theoretical and field research. Through comprehensive qualitative analysis, the relationships and social processes associated with the intrinsic historicity existing in the field and in the research subjects were observed.

The field research consisted of collecting empirical data in two distinct stages. The first was carried out in June 2021, with the application of semi-structured interviews with three farmers who are members of the Agroecological Cooperative of Rural and Clean Water Producers of the Southern Region of São Paulo (Cooperapas), which brings together organic producers from the Parelheiros region, in the extreme south of the city of São Paulo.

The interviews followed a script of open-ended questions that addressed the following topics: (1) profile of the farmers [place of birth and residence, age, professional and organic production history before and after becoming a member of the cooperative], (2) social and agricultural characterization of the rural production units, socioeconomic changes observed in the way of producing and marketing, in relation to the pandemic [marketing channels and income level before and during Covid-19], (3) transformations generated by the Covid-19 in society's awareness of healthy eating and in its perception of the importance of Agroecology and family farming, and (4) public policies for family and organic farming in the city of São Paulo.

The second stage of the field research was carried out between August 2021 and March 2022, with the conducting of structured questionnaires to 33 consumers from two alternative food chains, inserted in short marketing circuits in São Paulo. The questionnaire was made available online so that anyone interested in contributing to the research could access and respond. The sample of this group was initially planned to be made up exclusively of people who consume organic food produced by Cooperapas, specifically through the initiative called *Orgânicas para Todes*. However, due to the small number of people who agreed to participate in the survey, probably due to the pandemic period, it was decided to expand the sample by including consumers from another network called *Cores Vivas* Agroecological Network. This group buys organic food produced on farms in the Paraíba Valley region, less than 100 km from São Paulo. Both initiatives, considering the particularities of each farmer involved, offer organic food to consumers who live in São Paulo and are part of the city's short sales circuits. In

addition, the beginning of activities for these two experiences occurred in a similar period, in the first months of the pandemic in 2020.

The consumer questionnaire consisted of multiple-choice and Likert-scale questions, as well as open-ended questions. The decision to use the Likert scale for some questions was made to collect data and measure respondents' perceptions in more detail. The questionnaire addressed the following topics: (1) socioeconomic profile, (2) characterization of organic food consumption [consumption history, changes in eating habits during the pandemic, consumption motivations], (3) ways of recognizing organic food, (4) places to buy organic products before and during the pandemic, (5) difficulties related to buying organic products, (6) valuation of aspects related to Agroecology and healthy eating, and (7) food donation during the pandemic.

Due to the context of the pandemic and the recommendation of the Human Research Ethics Committee (CEP in the acronym in Portuguese), contact with research participants took place virtually, using the Google Meet video calling platform (in interviews with Cooperapas) and Google Forms (in questionnaires with consumers).

As approved by the Ethics Committee (CAAE 38627020.6.0000.5504), in order to preserve the identity of the people interviewed, throughout the discussions of the results they are presented as: Farmer I, Farmer II and Farmer III.

All people who made up the field research sample, both in the interviews and in the responses to the questionnaire, gave their consent to participate, through the Free and Informed Consent Form approved by the Ethics Committee.

RESULTS AND DISCUSSION

Taking into account the literature review presented in the Introduction and the theoretical references cited in the Methodology, the context and situations studied, it can be stated that the production relations and the interaction with consumers of agroecological

products express new socio-environmental relations, to the extent that changes in behavior and practices are inserted in a new cultural logic. In this sense, the presentation of the results below is in tune and in dialogue with the studies presented previously.

Characterization of the study area

The Agroecological Cooperative of Rural and Clean Water Producers of the Southern Region of São Paulo (Cooperapas) brings together farmers from the extreme south of the city, located in the districts of Marsilac and Parelheiros, administrative region of the sub-city hall of Parelheiros.

According to the 2022 Demographic Census of the Brazilian Institute of Geography and Statistics (IBGE, 2023), both districts occupy an area of 353.5 km², representing about 25% of the total of the city of São Paulo, with a population of more than 165 thousand inhabitants. This territory is known for its biodiversity and abundance of natural resources, as it is located in areas of protection of water sources and with important remnants of Atlantic Forest – Environmental Protection Areas (*Áreas de Proteção Ambiental* - APAs) Bororé-Colônia and Capivari-Monos.

The São Paulo master plan, in force since 2014 and revised in 2023, demarcates the rural area of the municipality, which includes the extreme southern region. In this current structure, the rural area corresponds to 28% of the city's total area, and is anchored in the multifunctionality of sustainable economic activities, combined with environmental and cultural preservation, such as the production of agroecological and organic foods and ecotourism. According to *Ligue os Pontos* - a project created in 2016, in a public-private partnership between the City of São Paulo and Bloomberg Philanthropies, to promote the sustainable development of the rural area in the south of the city (Prefeitura da Cidade de São Paulo, 2024a) - approximately 40 thousand people live in the rural area of São Paulo, and 84% of these families live on up to 2 (two) minimum wages per month.

A survey of data, conducted by the collaborative platform *Sampa+Rural* (Prefeitura da Cidade de São Paulo, 2024b) on agricultural production in São Paulo, found that of a total of 749 Agricultural Production Units (*Unidades de Produção Agropecuária - UPAs*) in rural areas, almost 77% (574 UPAs) are located in the southern region of the city. The vast majority of these units (69%) qualify as family farming areas (spaces of up to 20 hectares and predominantly family labor), with 28% of them headed by women and 53% of farmers between 35 and 60 years old. Only 10% of farmers have a Declaration of Eligibility for Pronaf¹ (Declaração de Aptidão ao Pronaf - DAP).

The cooperative and agroecological management

This topic presents the analysis of the data collected during the field interviews. The farmers interviewed are considered key people for the study, since they participated in the founding and/or were part of the management team of the cooperative.

The initial work of forming Cooperapas dates back to 2011, founded with the purpose of improving aspects related to the commercialization of organic products produced in the Parelheiros region. According to one of the farmers interviewed, the cooperative's statute lists around 40 farmers, half of whom are more active.

There is a sociocultural diversity in the life trajectories of its members. They are people who are distinguished by their age, rural or urban origin, sources of income generation and life experiences as organic producers. There are some farmers whose parents and grandparents lived and worked on the farm; others who migrated from different Brazilian states; those who worked in other professions before agriculture; and those who moved to the region in search of greater contact with nature.

Most cooperative farmers produce on sites with a total area of between 2 and 8 hectares. There are some small farms with more than 30 hectares, most of which are areas of preservation of native vegetation where agricultural activities are not permitted

¹ Pronaf is the National Program for Strengthening Family Farming (*Programa Nacional de Fortalecimento da Agricultura Familiar*)

(Nakamura, 2016). Certified organic agriculture is practiced on associated sites, with principles of biodynamic agriculture and permaculture.

Table 1 presents a characterization of the farmers' production units, their management methods and productive diversity.

Table 1. Female farmers' agroecological practices

	Farmer I	Farmer II	Farmer III
Site area/productive area (hectares-ha)	5 ha / 1 ha	2.8 ha / 1.4 ha	0.4 ha / 0.2 ha
Tenant (T) or Owner (O)	T (does not live on the site)	T (does not live on the site)	O (lives on the site)
Agroecological management	<ul style="list-style-type: none"> - Planting in consortium (insect control: coriander and broccoli) - Covering the beds with straw - Does not use a hoe - Natural remedies (diluted coffee grounds x ants) 	<ul style="list-style-type: none"> - Work to restore soil and springs - Permaculture, agroforestry - Knowing and observing the soil - Covering the soil with organic matter 	<ul style="list-style-type: none"> - Work with experiments and soil observation - Permaculture, agroforestry - Biodigester pit, biological filter for grey water, dry toilet, mandala garden and rainwater harvesting
Productive diversity	55 varieties of food: vegetables, aromatic herbs, banana, papaya, 13 PANCs (bertalha, nasturtium, taioba, etc.)	araçá, cambuci, cherry from Rio Grande, juçara, uvaia, cocoa, orange, lemon, basil, marjoram, PANCs (sorrel and taioba)	<ul style="list-style-type: none"> - araçá, cambuci, guava, grumixama, jaboticaba, juçara, pitanga, uvaia, banana, lime orange, tangerine - preparation of breads, cakes, jams

Source: Field research, 2021.

Marketing during the pandemic

Some Cooperapas farmers allocate almost all of their production to be sold via the cooperative, and others manage to combine sales through the cooperative with other channels, such as direct sales to consumers during tourist visits to their farms and delivery of baskets at predetermined points.

Before the pandemic, the cooperative sold its products in the city of São Paulo in different ways, all of them associated with short circuits. The main locations were: the Organic Products and Clean Agriculture Fair at the Ibirapuera “*Modelódromo*”; the

traveling organic fairs that were organized in several units of the Social Service of Commerce (SESC-SP); the *Instituto Chão*, a specialized organic products store, that works with principles of just and solidarity economy; and the restaurants Arturito and La Guapa, owned by chef Paola Carosella.

In addition to sales through the cooperative, the three farmers made direct sales to consumers during tourist visits to their production units, as part of the initiative called “*Acolhendo em Parelheiros*”. The project has been in existence since 2017 and was developed by the Brazilian Institute of Studies and Community Support (IBEAC), the result of a partnership between Cooperapas, farmers from Santa Catarina from “*Acolhida na Colônia*”, the Social Service of Commerce of São Paulo (SESC-SP) and a travel agency. Through community-based tourism – which is developed and led by local farmers themselves – the aim is to promote the practice of rural tourism in the southern region of the city that includes social and environmental sustainability in its activities. Before the pandemic, several visits were made by students from public schools, as well as other people interested in learning about organic food production.

Part of the food production of the Farmer I was also sold to a group of friends and acquaintances, with a predetermined delivery point at three Early Childhood Education Centers (CEIs) where she worked.

For Farmer I, the pandemic impacted sales to her group of friends, because she was delivering the baskets to schools, which were closed at the time, so she had to adapt and start delivering to homes. However, there was a reduction in the number of customers, since many lived far away, and it was not possible to continue delivering to everyone. On the one hand, her monthly income from agriculture decreased, but on the other hand, she said that she was able to ensure higher quality in the preparation of orders, since she had more time available. The reduction in sales from agriculture and tourism for this family partially impacted her family income, since the farmer relies on her retirement pension as her main source of income.

For Farmer II, the consequences of the pandemic on her agricultural activity were indirect, but they directly affected her main source of family income, the sales of her restaurant, where she is the owner and chef. With the temporary closure of the restaurant and the drop in business, when it was able to reopen, it was necessary to lay off some employees and the workload increased for her and her family. As a result, they did not have extra time available to dedicate themselves to taking care of the farm during the pandemic. Fruit trees continue to be her main production area, but some vegetables were no longer planted, as they required more regular care and management. Due to the decrease in her monthly income from the restaurant, she successfully carried out online campaigns to raise financial donations and be able to cover the operating costs of the establishment.

Farmer III reported that new marketing opportunities emerged during 2020, in order to partially rebalance her monthly income, due to the reduction in sales of organic food and the suspension of tourism activities. In the first months of the pandemic, Farmer III, along with a few other women who also live in Parelheiros, formed a collective called *Orgânicas para Todes*. The collective's proposal is the traditional sale of agroecological food baskets produced by local farmers, however, combined with the donation of a basket of the same value to families in the region who live in vulnerable situations. Therefore, the initiative translates into a solidarity food network, helping several farmers in the region (not only members of Cooperapas) to have an income during the pandemic, as they were having difficulty selling their produce, and also bringing healthy food to people in situations of food insecurity.

Another important source of income for the family of Farmer III, during this period, was the possibility of selling part of their production to *Cozinha das Amaras*. This is a solidarity economic business, the result of a partnership between IBEAC and the Popular Center for Culture and Development (CPCD), created within the scope of the project “*Acolhendo em Parelheiros*”. The management of the business and the preparation of the food are carried out by a group of women from Parelheiros, who use agroecological ingredients grown on the region's farms. Before the pandemic, they

organized workshops and discussion groups to disseminate knowledge in the community about healthy culinary recipes, food waste, empowerment, autonomy and income generation for women. With the Covid-19 pandemic, these meetings could no longer take place, which caused a decrease in the income obtained from the meals they prepared. One way they found to continue production was to include their breads and jams in the basket distributed by *Orgânicas para Todes*.

It is clear that the difficulty that farmers had in selling organic food, especially at the beginning of the pandemic, through the cooperative, was temporary. Because they were associated in a network and were part of short circuits with established commercial partners in the city, the problems with marketing were able to be overcome in a stable and gradual manner as soon as the trade was reopened.

When the Ibirapuera organic fair reopened, the cooperative's stall faced difficulties, as the people responsible for it were part of the risk group and were afraid of leaving social isolation. After a period and at risk of losing the location, they managed to organize themselves and resume sales following the protocols of using masks, alcohol gel and social distancing.

Tourism activities on Parelheiros farms have not resumed after the most intense period of isolation during the pandemic. This is one of the moments of close contact with consumers that the farmers said they miss the most. In addition to being a great source of income, they describe how happy they feel when they welcome people to their production site, talk about Agroecology, share their stories, their way of life and culinary recipes. It is in these types of encounters that they also feel recognized and valued for their work.

Profile of AFN consumers

The second stage of the field research consisted of applying questionnaires to 33 consumers of two alternative food chains in São Paulo, according to the sample

selection criteria detailed in the Methodology. The largest proportion of respondents were between 35 and 44 years old, corresponding to 57% of the total.

It is worth remembering that consumers from *Orgânicas para Tódes* and *Cores Vivas Rede Agroecológica* were interviewed, both initiatives created by women with the same age profile (35-44 years old). It can be inferred that a significant part of these consumers may have started buying from them because they already knew each other and/or were part of close social circles.

Most respondents were female (85%), white (70%) and mixed race (15%). The professional activities reported were diverse, with a predominance of jobs in the areas of education, communication and arts (journalists, public relations, designers), nutrition and sustainability. Regarding monthly family income, 33% of respondents earn more than 12 minimum wages (MW), followed by 21% between 3 and 6 MW, and also 21% between 6 and 9 MW. This economic profile is reflected in the high level of education of the respondents, with 58% having postgraduate degrees and 42% having completed higher education.

Consumption motivations and perceptions about Agroecology

Of the total number of people interviewed, 67% said they started eating organic foods as adults and 24% in the recent past, motivated by the pandemic. It is worth noting that almost a quarter of respondents changed their eating habits with the arrival of the pandemic, not only due to social isolation measures, but also for other reasons that will be demonstrated below.

For these two groups (“adulthood” and “I started recently, during the coronavirus pandemic”), they were asked to briefly describe the main reasons that made them change their eating habits. The responses focused on the main motivational themes presented in Table 2 below.

For those motivated by health concerns (32%), organic foods represent a way to care for the health of the family, seek healthier eating habits and improve quality of life. Some

other respondents stated that they follow diets for medical reasons and others stated that they want to “not ingest poison” and “use fewer pesticides”. The second most addressed topic in the responses (24%) refers to greater access to information about the impacts of pesticides on human health, the environment, and climate and, consequently, greater awareness on the subject.

Table 2. Motivations for changing eating habits in adulthood or during the pandemic

Main reasons for changing eating habits	Percentage (%)
Health concerns	32
Increased environmental, social and political awareness about the impacts of pesticides	24
Support and appreciation of Agroecology and sustainable practices	14
Increase in the supply of establishments that sell organic products	14
Practicality of online initiatives that deliver organic products to your home	
Perception that the prices charged by AFNs are more affordable when compared to those of supermarkets	16
More time available to organize your daily eating routine	

Source: Field research, 2021.

For these two groups above, it is clear that the motivations for consuming organic foods revolve around the search for health for themselves and their families, but they also indicate the existence of other concerns when choosing this type of food, such as environmental preservation and the negative impacts of unsustainable agricultural practices and pesticides. Here, we can see a qualitative change in consumer perceptions that is in line with the “One Health” (*Saúde Única*) of the Brazilian Federal Government Program of the Ministry of Health (Brasil, 2024). It reinforces the need to practice sustainable agriculture as a way to prevent new pandemic outbreaks, and to promote not only human health but also animal and environmental health. It is also observed that these consumers seem to have a broader understanding of the aspects related to the multiple dimensions of a food system.

Although there were fewer responses (14%), it is worth highlighting the group of people who began to include organic products in their diet because they wanted to support and value “agroecological networks”, “small-scale agriculture” and “more sustainable practices”. Or to encourage “a form of production that, in general, seems to involve less labor and environmental exploitation”. There are also those who demonstrate an interest

in the relational dimension, such as: “a desire to get closer to farmers and agroecological movements” and “relationships with more conscious people”.

It is clear that, in addition to motivations related to the search for health and quality of life, these consumers show other social and political concerns in their consumption choices. It is noted that proximity (geographic and/or relational), in addition to the possibility of knowing and being close to farmers, are conditions provided by the AFNs that contribute to consumers having greater interest and access to information about organic foods, Agroecology, and other topics related to healthy eating and environmental preservation. The holding of workshops, discussion groups and visits to production units by farmers, for example, are good examples where knowledge and experiences can be exchanged in order to generate greater awareness among people.

Regarding the interviewees' perceptions about how to recognize an organic fruit and vegetable, the answers were divided. While on the one hand, around 31% recognize an organic food by its certification seal, on the other hand, 50% also consider organic those without certification, called ecological foods (25%) or that carry information that it is produced without the use of pesticides and chemical inputs (25%).

Furthermore, 16% of people mentioned that they can check whether the food is organic by talking to the farmers/sellers themselves at the place and time of sale, opportunities that are provided by the AFNs associated with short circuits.

It is worth noting that, in addition to the organic certification seal, for a large portion of these consumers, the recognition of an organic food can also take an alternative route to that currently proposed by large retail chains. For these people who already access organic products via AFNs, the element of proximity (whether geographical and/or relational) to trusted farmers and suppliers, of being able to know who produces them and visit the production sites (as in Cooperapas) allows greater access to information and awareness regarding the particularities that are not only economic but also environmental and social that involve organic production and Agroecology.

Aiming to understand a set of motivational factors for the consumption of organic foods, respondents were asked to attribute a degree of importance to values and principles considered intrinsic to the characterization of AFNs (evaluation scale: 1-not at all important; 2-not very important; 3-important; 4-very important).

Nine elements were assessed, described in the order in which they appear in the online form: (1) consuming food grown without the use of chemical fertilizers and pesticides; (2) buying from local farmers and from municipalities near São Paulo; (3) buying organic food directly from farmers; (4) diversifying diet; (5) knowing who produces and where the food comes from; (6) knowing the vegetable gardens and food production sites, participating in activities in contact with nature; (7) health and well-being of farmers; (8) health and preservation of the environment; (9) valuing family farming.

With the exception of item 6 above, all the others received high and similar scores of importance, that is, they represent not only the relevant motivations for consumption but also the subjective values when choosing to include organic foods in their diet. The possibility of visiting vegetable gardens and participating in activities in nature may not have initially caught people's attention, since this type of activity is not yet a widespread practice in agroecological territories and was suspended due to the pandemic.

Eating habits before and during the pandemic

A significant percentage of people (91%) were already used to cooking and eating at home before the emergence of Covid-19, and said they maintained this habit.

Regarding the main sales channel they used to access to buy organic products before the pandemic, most consumers frequented “specialized physical stores” (29%) and ordered “delivery directly from farmers” (26%). For 16%, the main place to buy organic products was supermarkets. Some people responded that there were indeed changes in the choice of places to buy organic products during the pandemic, whether due to social distancing restrictions, the emergence of new and more online options for selling food with home delivery service, or the search for values for conscious food consumption.

Around 88% of consumers encounter difficulties that make them eat less organic food than they would like. The most cited factors were price, availability of a variety of food options, lack of time to organize shopping and cooking.

Finally, it is worth highlighting the presence of a relationship of solidarity in this group of consumers: 94% of those interviewed stated that they had participated, directly or indirectly, in food donation initiatives organized by organizations and social movements. In addition to indirect participation through monetary contributions to make food donations possible, many people also became more actively involved in other actions, such as volunteering in the production of free lunch boxes and organizing fundraising campaigns to buy food parcels.

Transformations in the close relationship between farmers and consumers

When analyzing the changes experienced by Cooperapas farmers and AFN consumers, it is important to distinguish two moments during the pandemic. The first moment was when the number of infections and deaths was increasing, with strict social isolation measures and in-person activities suspended. And a moment further, with a reduction in the transmission rate, deaths and the start of vaccination, and relaxation of distancing recommendations.

The direct marketing of organic food by the cooperative and by farmers, in addition to participation in other in-person activities, were also impacted to different degrees during these phases of the pandemic.

Table 3 describes the operating situation of Cooperapas' short-circuit marketing channels during different moments of the pandemic.

Before the arrival of the coronavirus, activities beyond commercialization via cooperatives (Instituto Chão, restaurants), such as street markets, sales at the production site through tourist visits, and workshops and lectures were those that most enabled physical proximity and direct contact with consumers. On these occasions, the exchange of knowledge was a very important element in building close relationships with people.

Sharing information on the production of organic food and its specificities, in addition to the challenges of distribution and transportation logistics, offers consumers an awareness of the importance of the work carried out by farmers.

Table 3. Direct marketing channels and complementary activities during the pandemic

Cooperapas short circuits	Before the pandemic	Critical phase of the pandemic	After easing of isolation
Sales to Instituto Chão and restaurants	Yes	No	Yes
Ibirapuera Modelódromo Fair	Yes	No	Yes
Sesc-SP traveling fairs	Yes	No	No
Delivery sales	Yes	Yes	Yes
Sales at the production site / tourism	Yes	No	No
Workshops, lectures, face-to-face discussion groups	Yes	No	No

Source: Field Research, 2021.

It is clear that, while Covid-19 has limited face-to-face meetings in alternative networks, this moment may have encouraged consumers to reflect more on the importance of healthy eating and its relationship with Agroecology and human, animal and environmental health. According to one of the farmers, as people were spending more time indoors, they became more aware of the quality of their food. In this sense, she states that the demand for organic food with home delivery service has grown significantly, and she knows several farmers who have started selling in this way during this period. For the farmers, people now realize that organic food is a necessity to make the body stronger and more likely to defend itself against diseases.

As seen in the previous section, a portion of consumers are also aware of the impacts of unsustainable agricultural practices and the use of pesticides on the environment and health. This motivates them to include organic products in their diet and strengthens support for alternative food networks.

It is true that the discussion here is limited to the greater awareness generated by the pandemic among segments of the population who can choose to buy organic food, generally middle and upper class. It is known that more than half of the Brazilian population currently lives with food and nutritional insecurity, also aggravated by high unemployment rates and inflation of basic foods, such as rice, vegetable oil and meat, contrary to the recommendations of the Food Guide for the Brazilian Population. The survey carried out by the Brazilian Institute for Consumer Protection (Idec in the acronym in Portuguese) in 2020 showed that the consumption of ultra-processed foods by Brazilians, between 45 and 55 years old, jumped from 9% to 16% during the pandemic.

In all the farmers' reports, it is noticeable that the relational proximity that existed with consumers before the pandemic was certainly essential to generate a movement of awareness and appreciation of the work they do, in order to contribute to the strengthening of Agroecology.

FINAL REMARKS

In face of a scenario of climate emergencies and the emergence of other zoonoses with pandemic potential, there is an urgent need to reorient the current rural development model towards sustainable food systems supported by Agroecology, and to raise awareness about this public health issue throughout society.

The Covid-19 crisis, however, has highlighted the importance of “re-spatializing” food, reconnecting people with food, reestablishing contact with those who produce it, and shortening the distance between production and consumption. The importance of healthy, local, and organic food was on the agenda during this period.

In this sense, it was found that the Covid-19 pandemic caused not only a change in consumers' eating habits, but also generated a qualitative change in the values and motivations shared between farmers and consumers, in the proximity dynamics provided by the AFNs.

Following the example of Cooperapas, farmers in Parelheiros, in the far south of the city of São Paulo, are strengthened by networked marketing, as it allows them to work with a variety of sales channels and distribute organic food production from different family farms. Participation in the cooperative has proven to be important in the farmers' trajectory before the pandemic, since the structuring of networked production to access short organic food circuits in the city becomes an incentive for their improvement and their continued work with organic agriculture. For consumers, it is clear that they are given importance to knowing who produces the food, where it is produced, the appreciation of the work conducted by farmers and the trust established.

During the initial, most critical months of the pandemic, there was a temporary drop in sales by the cooperative. However, innovations in the way of interacting and marketing were generated, including solidarity initiatives to bring healthy food to families in situations of food insecurity and, at the same time, generate income for farmers who needed alternatives to sell their production. The logic of working collectively in the cooperative and having a structure of market relations already consolidated in the pre-pandemic period were differentials that enabled the gradual resumption of sales of organic food, when the stores were able to reopen.

It was found that the physical proximity between farmers and consumers, provided within the scope of these networks, was temporarily compromised due to the restrictions imposed by the pandemic. In turn, the movements of relational proximity between production and consumption, activated by the AFNs during the pandemic, proved to be a fundamental point in changing society's awareness about the need to produce food in sustainable food systems, supported by the One Health approach. In addition to concern for human health, other diverse environmental, social and political motivations were mentioned by consumers.

Choosing responsible consumption is an essential element for strengthening alternative food networks; however, it cannot be the only reference for guiding public policies and development programs in Agroecology. It is important to emphasize the need to also

delve deeper into the analysis of institutional and logistical issues that limit the structuring and expansion of the supply of organic food.

Public policies that promote agroecology in rural areas of the city of São Paulo must also take on the responsibility of promoting the development of sustainable food systems in dialogue with society. There is already a municipal-level project, a public-private partnership, that works in Parelheiros in this sense and has been of great relevance. However, the State's support for farmers is still insufficient, especially to allow access to credit to finance production improvements.

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