

PERCEPTION OF THE PRODUCTION OF ORGANIC VEGETABLES FOR MERCHANTS AND CONSUMERS OF THE FREE MARKET OF POMBAL – PB

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Abstract: The organic movement in Brazil emerged at the end of the 1970s, however, it advanced only in the 1990s, mainly due to NGOs and partnerships with social movements and family farmers, representing a healthier and more sustainable food alternative, despite the challenges faced, having its consumption directly influenced by cultural, ethical, social and financial motivations. In this context, the objective was to analyze the sustainable perception of the fairgoers and consumers of organic products in the open market of Pombal-PB. The methodology adopted was a case study with a qualitative approach, where interviews were conducted with the stallholders and questionnaires applied to consumers. The results showed that 75% of the producers are male, most of them living in rural areas. Most of them adopt composting as a practice and face challenges due to the lack of technical assistance and the absence of product certification. As for consumers, 76% are women, and 44% have higher education. It was observed that the majority identified an improvement in the quality of life due to the consumption of these products, although they did not worry about the certification, demonstrating the trust between farmers and consumers, evidenced by 72% of the respondents considering themselves satisfied with the quality of the vegetables. It is concluded that, despite the challenges mentioned, the production and consumption of organic products in Pombal-PB contribute to food security and environmental sustainability, in addition to reflecting the satisfaction and dedication of farmers/traders.

Keywords: Organic Products, Sustainability, Certification, Quality of life.

INTRODUCTION

In Brazil, the organic and/or agroecological movement began in the late 1970s, however, it had a more significant advance coming from non-governmental organizations (NGOs), and in partnership with social movements and family farmers' organizations in the 1990s, seeking an alternative agriculture to the conservative modernization model. In 2003, the regulatory framework was approved with Law No. 10,831, which provides for organic agriculture in Brazil, covering different types of alternative systems – ecological, biodynamic, natural, regenerative, biological, agroecological, permaculture and others (IPEA 2020; Carvalho, et al., 2022).

In this sense, organic agriculture has been standing out as an alternative form of income for family farmers regarding the quality of organic food, in terms of healthiness, safety and environmental sustainability (Campanhola, Valarini, 2001; Lamonaca et al., 2022). The literature lists that organic agriculture, compared to conventional agriculture, is more beneficial both to human health and to conserve the environment, however, it has a low productivity and higher prices (Esteves; Vendramini, Accioly, 2021).

This stems from difficulties caused by the precariousness of technical assistance, added to the high susceptibility of organic production to pests, climate, the need for a larger workforce, among other issues, which affect its production (Feil et al., 2020). In addition, challenges such as the concentration of land and the predominance of monocultures hinder the advancement of organic production, investment and the dissemination of research, experiences and technological innovations, the very absence of systematic official data on the sector also constitutes an obstacle to organic production, since it makes it difficult to develop strategic plans and understand demand in order to prioritize large producers (IPEA 2020).

The consumption of organic food has been influenced by the availability of supply, highlighting that the motivations vary according to cultural, moral, ethical, social, nutritional and financial values. In addition to positively resulting in social impact and minimizing the damage related to the application of pesticides (Esteves, Vendramini, Accioly, 2021); Aquino, Passini, Cadore, 2021).

In view of the above, this research aims to investigate the sustainable perception of organic product traders, specifically vegetable traders and their consumers at the open market in Pombal-PB, in order to obtain indicators on sustainable management in the crop, practices performed, supply and demand, product certification, healthy eating and other advantages or limitations of production, marketing and consumption in relation to organic products at the fair.

MATERIALS AND METHODS

The methodology adopted in the development of this work was a case study in the form of data collection, through interviews, with farmers who sell organic vegetables and consumers. The approach throughout the research was exploratory and descriptive, of a qualitative nature, seeking to understand the environment, productivity and quality of life of the actors involved (Lakatos; Marconi, 2003).

FIELD OF STUDY

The study took place in the municipality of Pombal located in the state of Paraíba, Brazil, which occupies an area of 894,099 km². According to data from the Brazilian Institute of Geography and Statistics (IBGE), the last census conducted in 2022 recorded a population of 32,473 inhabitants, resulting in a demographic density of 36.32 inhabitants per km².

SURVEY SAMPLING

Data collection was carried out during on-site visits, the open market in the city of Pombal – PB, the research was worked for two months (December 2021 and January 2022), contemplating the quantity comprised of 20 stallholders and 100 consumers who purchase the vegetables. And, because it respects the ethical aspects and because it knows what is recommended by Resolution No. 510/2016 on the regulated standards for research involving the humanities and social sciences, this research was approved by the Ethics Committee under CAAE Protocol number 52141521.9.0000.0154. This implies a commitment to the protection of the participants, ensuring confidentiality, anonymity and also clarification about what was done with the results obtained, through the Free and Informed Consent Form (ICF).

DATA COLLECTION TECHNIQUES (INSTRUMENTS)

The interviews were conducted with the merchants of the organic producers of the open market located in the center of the city of Pombal-PB. On the other hand, questionnaires were made available to consumers of organic products.

The interview followed a structured script, and focused on the theme of sustainability in the scope of family farming, organic production, commercialization and reuse and/or final disposal of waste, cost benefits, quality of life at work, satisfaction and productivity of work, among others. On the other hand, the questionnaire addressed structured questions in the field of healthy eating, product certification, quality of life and costs. Subsequently, the results were compiled and presented in the form of tables/graphs in Microsoft EXCEL.

RESULTS AND DISCUSSION

PROFILE OF ORGANIC TRADERS/ PRODUCERS

The data obtained revealed that 75% of vegetable producers are male, which corroborates the results of the last Agricultural Census carried out in the municipality of Pombal, PB (IBGE, 2017), and whose average age group is 50 years old. Through the average presented, we can see that the producers are old and that the participation of young people in the process of production and commercialization of organic products is negligible, which corroborates the Census previously mentioned.

It was found that 95% of the producers live in the rural area, bringing their products to be sold only on the days determined for the open market in the center of the city of Pombal-PB. Most of these merchants feature an average-sized family of four. And, the predominant income estimate is up to 01 minimum wage corresponding to 60% of the interviewees, followed by 20% who claim to have a salary above 3 minimum wages, 15% who have an income between 01 to 03 minimum wages and 5% who say they have no income.

Such observations consolidate the study by Silva and Costa (2010), which even after a period of more than a decade still remains consistent with reality, when they found that the majority of vendors/fairgoers in the municipality of Pombal – PB are men from the rural area, with an average age between 31 and 45 years, whose monthly income exceeds the minimum wage. however, about 47% supplement this amount with other sources of income.

SUSTAINABILITY AND ORGANIC PRODUCTS

An absolute consensus was observed among the vendors/stallholders when opting for this type of production, attributing this choice to the contemplation of a healthier diet, as well as to the benefits for the environment, given that the factors that led them to produce organic products, especially vegetables (coriander, chives, lettuce, cabbage, cherry tomatoes, peppers and chili peppers), They are directly linked to the generation of income to support the family, which corroborates the family income of less than one minimum wage presented in the previous topic.

Regarding the importance of organic food for the present day, it was observed that 30% of the producers believe that these products improve the health of consumers, 20% associate their consumption with a quality diet, 10% declare that the products are free of agrochemicals and 40% agree that the quality of these products is superior to that of those grown with pesticides.

Such descriptions express the perception of these traders/producers in relation to providing their consumers with the option of a good quality organic food, free of contamination by synthetic fertilizers and agrochemicals, contributing to the improvement of food and, consequently, to the quality of life of its consumers, in addition to promoting the preservation of the environment.

In the context of sustainability, the activities that are developed sustainably on their properties were described, the majority, 75% of the total, use composting as the main activity for the sustainable handling of production, the remaining 25% admitted that they do not use any activity, which can be justified by the lack of understanding when questioned about the subject, although the development of these activities has been thoroughly detailed. It should be noted that the use of composting

of lignocellulosic crop residues, according to Harindintwali, Zhou, Yu, (2020) contributes to the improvement of soil properties and plant growth in an environmentally friendly way.

Regarding the existence of entities/organizations that support organic production, 80% answered that they do not receive any type of help or guidance in production, and 20% said that they receive: i) from the Diocese of Cajazeiras - PB, help and clarifications showing the proper way to handle organic production; ii) the Municipality of Pombal -PB, with the direct purchase program, which is the purchase of products made directly from the family farmer and whose purpose is to encourage, value and strengthen family farming, through economic and social inclusion, sustainable production and income generation; and iii) EMATER (Technical Assistance and Rural Extension Company), which has taken agro-sustainable alternatives to the countryside and shown more profitable paths for small producers. However, even they claim that during the pandemic all support, already insufficient, was suspended, leaving them even more fragile.

COMMERCIALIZATION, PRODUCTION FEASIBILITY VERSUS COSTS, AND JOB SATISFACTION.

The motivations for selling organic products, such as fruits and vegetables, are scored according to the viability of production versus cost-benefits and job satisfaction. And, these take into account the importance for income and family support, the production of differentiated and healthier products, since consumers seek a better quality of life and healthier habits, and especially in the pandemic period, the pleasure of doing their work, in addition to meeting the needs of the population, with also feeding his own family and using the leftovers from the production for animal feed (Figure 1).

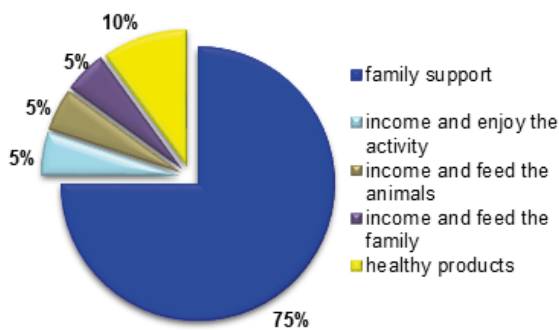


Figure 1. List the motivations that lead producers to sell organic products.

When asked if it was significant to obtain a family income from the sale of these products, they were unanimous, that is, 100% answered that they felt fulfilled with what they did, because the handling of this type of production is perpetuated for generations through the empirical knowledge transmitted by their parents. And, that the income obtained through this commercialization is directed exclusively to family support, bringing a significant value to the condition of family life (Pessoa, Alchieri, 2014).

Regarding the desire to expand their production and increase sales, 90% of the merchants did not hesitate to say “YES”, because it represents an increase in family income directly influencing the quality of life. On the other hand, the remaining 10% answered “NO” if they were motivated, using as justification the restriction of space or advanced age, also attributing it to the lack of recognition of the consumer, especially when they are looking for lower prices and the difficulties related to crop care.

Because they believed that the production of these vegetables improved their quality of life and that of their families, 100% of the interviewees said “YES”, because, as mentioned in the previous items, the preponderant factor was based on the maintenance of the family with the income from the sale of these vegetables. Still in relation to the positive

impacts caused on the health of producers, consumers and the environment, 100% of producers were convinced of the benefits brought by the consumption of vegetables produced in a sustainable way. With regard to this, when they felt fulfilled and valued with what they produce, only 10% answered “NO”, emphasizing the little value often given by the consumer, the labor employed, the specific care with the cultivation, the difficulties faced and the quality of the products, when they find it expensive and ask to make a lower price.

USE OR FINAL DISPOSAL OF WASTE (LEFTOVERS) FROM PRODUCTION TO SALE OF ORGANIC PRODUCTS (VEGETABLES)

Considering the residues from their production in the field, the traders/producers responded according to the data shown in Figure 2, which make the following appropriate destination to such waste: i) 80% use them to feed animals, such as cattle, goats and poultry, ii) 10% use the leftovers of production to obtain organic fertilizer, through composting, iv) 5% said they consume the leftovers and also feed the animals and, v) the remaining 5% use the leftovers and sell them for animal feed.

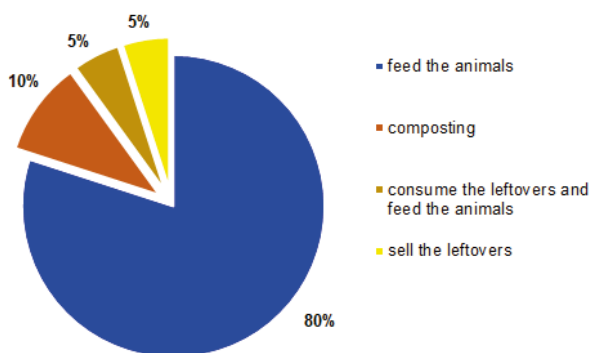


Figure 2. Disposal of waste (leftovers) from production (field).

As for the leftovers from the sale of the products in the open market, most of the 75% interviewed inferred that they use them to feed the animals, another 10% mentioned that they use them for consumption and/or feed the animals with the leftovers, and 10% that they produce organic fertilizer through the composting process and a minority of 5% sell what is leftover.

These practices are in line with the study by Araújo (2016), who measured the amount of organic waste produced in the public market of Pombal-PB, and found a variation between 73.9 and 91.5 kg, on Wednesday and Saturday, respectively. It also reports that part of this waste is collected by owners and destined for animal feed, as well as for composting.

MOTIVATIONS: CERTIFIED AND NON-CERTIFIED PRODUCERS

Considering that organic product, in order to be marketed, must be certified by bodies accredited by the Ministry of Agriculture, with the exception of those produced by family farmers who are part of social control organizations registered with MAPA (Ministry of Agriculture and Livestock), which sell exclusively in direct sale to consumers (MAPA, 2019). To obtain this certificate according to the Brazilian legislation on organic agriculture (Law 10.831/2003), it is necessary that the production process is free of intentional contaminants (pesticides), that the biological diversity of the ecosystems in which the production system is inserted, that it makes healthy use of the soil, water and air, and that there is the recycling of waste of organic origin. reducing the use of non-renewable resources to a minimum.

However, in this research it was observed that 100% of the organic products produced in the region are not registered, that is, they do not have any type of certification, demonstrating a certain lack of knowledge

in relation to certification. This data was confirmed by the Union of Rural Workers of the municipality of Pombal and also by EMPAER (Paraíba Company for Research, Rural Extension and Land Regularization).

When asked whether consumers asked whether the organic products sold by them had any certification, only 5% responded that the demand for products with certificates is very small, 70% that the majority of consumers do not ask this question, in addition to describing an increase in sales. without having the aforementioned certification, and the remaining 25% were unable to argue or appear indifferent to the matter.

These results coincide with the observations of Santos Junior, Barros and Mendes (2021) who report “certification is still unknown among consumers”. Therefore, the majority places product quality as their main concern. That said, the need to raise awareness about organic certification is highlighted, since it was observed in this study that both traders/producers and the majority of consumers are poorly informed about the topic.

CONSUMER PROFILE

The study revealed that 76% of the consumer public is female, with an average age of 42 years. This representation shows the relevance of the purchasing power of women who have dominated the Brazilian market mainly in domestic consumption, seeking the healthiest products, thus demonstrating a greater concern with the quality of life and health of the family, which in its majority has on average 4 people. Regarding their origin, 84% of consumers are from urban areas and only 13% are from rural areas, the remaining 3% did not respond.

Furthermore, it was also observed that 44% of the consumer public has higher education, followed by 35% with completed high school, and the remaining 21% distributed between

Elementary School I and II, Literacy and No schooling. This point highlights the plausible relationship between the level of education and the consumption of organic products, given that people with greater education tend to seek a better quality of life through their food choices.

The distribution of monthly family income is 47% with an income of 1 to 3 minimum wages, followed by 14% above 5 wages, 10% between 3 and 5 wages, 10% were unable to provide information, 9% have an income of less than 1 minimum wage, 2% declared themselves without any income, and the remaining 8% did not respond. Comparing with data from IBGE (2021), which indicate the average monthly salary of formal workers in Pombal-PB as 1.9 minimum wages, it is clear that income is related to the acquisition of organic products, since the higher the income, the better the quality of life, this includes a healthier diet.

HEALTHY EATING VERSUS QUALITY OF LIFE

When asked about buying organic products at the open market in the city center of Pombal, 75% of consumers said they purchased organic products at the free market. And, the motivations that lead them to consume organic products (vegetables), as shown in Figure 3, were: i) because they are healthier products and improve health, ii) because of the quality of the product, iii) they buy the products to help producers locations and iv) because prices are more affordable.

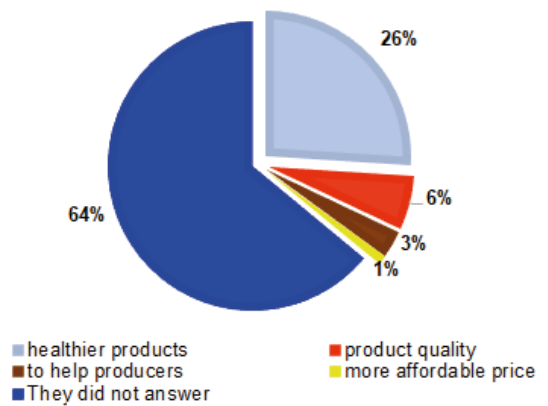


Figure 3. Motivação dos consumidores em adquirirem os produtos orgânicos.

When asked whether their quality of life improved after starting to consume organic products and whether they had noticed any change in flavor and aroma, 83% of those interviewed responded that they attributed considerable changes to their quality of life to the consumption of organic products and that they felt a change in flavor, aroma, characterizing them as being tastier, which confirms that a healthier diet contributes to a healthier body, in contrast, 11% said they had not noticed changes in quality of life nor noticed differences associated with flavor and aroma after consume the aforementioned products and 6% did not answer the question.

Even with the significant number of consumers who state that consuming organic products has improved their quality of life, only 64% of them stated that their entire family consumes organic products, 34% that they do not consume organic products and only 2% did not want to answer. Among the consumers surveyed, 76% of them encourage other people to consume organic products, 18% do not and 6% did not answer the question.

CERTIFICATION OF ORGANIC PRODUCTS VERSUS COSTS

Regarding the topic of certification, it was observed that 58% of consumers interviewed said that they buy certified products, while 31% said “NO”, demonstrating knowledge regarding the topic discussed, which justified their answers in the most varied ways, stating that , i) not all products are certified, ii) that certified organic products are very expensive, iii) that they do not exist “around here” (in the Pombal-PB region), iv) that they have difficulty finding them, v) that because they come from family farming they do not have certification, and the remaining 11% did not respond.

Regarding the ease of purchasing organic products at the Pombal street market, 58% of consumers stated that they found it easy to purchase them, as there are many producers making their products available in the region in a variety of ways, thus guaranteeing a greater reach to the needs of consumers participating in this research, without leaving it missing from their tables. 39% expressed difficulty in purchasing the products and 3% did not take a position.

Taking into account that the majority of consumers demonstrated that they are aware of the “non-certification” of organic products, we found that there is a relationship of trust and loyalty between consumers and producers, established through a direct relationship, since the producers themselves sell their products. This statement is consolidated when 68% of consumers stated their trust in this relationship, 29% did not recognize this trust and 3% did not respond.

In terms of satisfaction in purchasing such products, 72% of those interviewed said they were satisfied. The limited variety of products reflects the dissatisfaction of 19% of the sample results, and 9% of the total did not express their opinions.

Having raised the question of whether there is any difference in terms of quality between organic products produced and sold in the street market and those found in supermarkets and fruit and vegetables, it was observed among the universe of 100 interviewees that 72% pointed out this difference through the taste of the product, 23% did not distinguish any difference, 1% did not know how to inform and 4% did not respond.

Regarding the affordability of organic products (vegetables) at the Pombal street market, 74% consider them to be fair. Compared to the benefits they bring to health, organic products have had relevance on the table of consumers who seek security in organic agriculture and the guarantee that they are taking home healthy products, free from agrochemicals, and this has been the difference in time to choose products. 21% expressed dissatisfaction with organic prices and 5% did not express their opinion.

CONCLUSIONS

The data collection was of fundamental importance to know the sustainable perception of organic producers and consumers at the Pombal open market. Where producers in the mold of family farming, whose empirical knowledge is passed from generation to generation as a way to perpetuate the culture and cultivation of organics, which has brought to the producer’s life significant motivations from the sale of these products such as food security, job creation, an income to support the family, the alleviation of poverty, the curbing of the rural exodus, in addition to contributing to environmental preservation.

In the midst of the due economic relevance of organic production for the local producer, we are faced with some bottlenecks that often prevent the improvement of techniques to be used in cultivation and consequently the increase of production, such as: technical

assistance, scarce labor, the climate, pests, the lack of public policies, among others. In addition, there are few entities that support organic producers and the lack of public policies creates another obstacle to increasing production. Above all, even with limitations and always being surrounded by difficulties of all kinds, the producers did not show dissatisfaction with what they do, on the contrary, they showed fulfillment in growing healthier food products, in addition to expressing the quality and importance of their products for the present day with a production that aims to reduce environmental impacts.

On the other hand, the profile of consumers has mostly completed higher education, which concludes that the level of

education and income influence the search for healthier products, demonstrating a concern with family health and a greater awareness in relation to the preservation of the environment, in addition to encouraging others to consume. And that, for them, the lack of certification of local products is not a relevant factor when purchasing organic products, which reveals a relationship of trust between consumer and producer woven over time. Thus, corroborating with the manifestly declared satisfaction in relation to the organic products sold in the open market of Pombal, including in relation to the prices considered fair when taking into account the benefits they bring to health.

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