# The preference to purchase organic products considering diversification and specialization of family farming

A preferência de compra de produtos orgânicos considerando diversificação e especialização da agricultura familiar

La preferencia por la compra de productos orgánicos ante la diversificación y especialización de la agricultura familiar

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**Resumo:** Family farming is the backbone of many communities around the world, representing a traditional and sustainable way of producing food. Two strategic paths stand out in this context: specialization, with a focus on and cultivation in specific activities, and diversification, which includes expansion to different agricultural sectors. In this duality, family farming finds ways to optimize resources, increase resilience and meet the constantly evolving demands in the market. The aim of this study was to analyze the preference for purchasing organic products considering the diversification and specialization of family farming in the city of Corbélia, Paraná. The research is characterized as quantitative and, for this purpose, a survey was carried out using a structured survey questionnaire with varied scales, containing 35 closed questions related to the theoretical elements discussed in the study, through a sample survey of 407 respondents. From the study it was possible to identify that taking into account factors that influence consumption habits such as income, health, lifestyle, environment and knowledge when buying organic products, specialization is the most favorable alternative to the producer of organic products, because, by being specialized in only one type of production, food has higher quality, being able to meet more specific demands and thus increase their market opportunities.

**Keywords:** consumption habits; sustainable consumption; family farming; sustainability.

**Resumo:** A agricultura familiar é a espinha dorsal de muitas comunidades ao redor do mundo, representando uma forma tradicional e sustentável de produção de alimentos. Dois caminhos estratégicos destacam-se nesse contexto: a especialização, com foco e cultivo em atividade especificas, e a diversificação que abrange a ampliação para diferentes setores agrícolas. Nesta dualidade, a agricultura familiar encontra meios de otimizar recursos, aumentar a resiliência a atender às demandas em constante evolução no mercado. O objetivo deste estudo foi analisar a preferência de compra de produtos orgânicos, considerando a diversificação e especialização da agricultura familiar da cidade de Corbélia, Paraná. A pesquisa se caracteriza como quantitativa e, para tal, foi realizada uma pesquisa através de um questionário do tipo *survey* estruturado com escalas variadas, contendo 35 questões fechadas relacionadas com os elementos teóricos discutidos no estudo, por meio de levantamento amostral de 407 respondentes. A partir de estudo, foi possível identificar que, levando em consideração fatores que influenciam os hábitos de consumo, como renda, saúde, estilo de vida, meio ambiente e conhecimento na hora da compra de produtos orgânicos, a especialização é a alternativa mais favorável ao produtor de produtos orgânicos, pois, por serem especializados em um só tipo de produção, os alimentos apresentam maior qualidade, podendo atender a demandas mais especificas e, com isso, aumentar suas oportunidades de mercado.

Palavras-chave: hábitos de consumo, consumo sustentável, agricultura familiar, sustentabilidade.

**Resumen:** La agricultura familiar es la columna vertebral de muchas comunidades alrededor del mundo, representando una forma tradicional y sostenible de producción de alimentos. En este contexto, destacan dos enfoques estratégicos: la especialización, centrada en el cultivo de actividades específicas, y la diversificación, que abarca la expansión hacia diferentes sectores agrícolas. En esta dualidad, la agricultura familiar encuentra formas de optimizar recursos, aumentar la resiliencia y satisfacer las demandas en constante evolución del mercado. El objetivo de este estudio fue analizar la preferencia de compra de productos orgánicos

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considerando la diversificación y especialización de la agricultura familiar en la ciudad de Corbélia, Paraná. La investigación se caracteriza por ser cuantitativa y, para ello, se realizó una investigación mediante un cuestionario de encuesta estructurado con escalas variadas, que contiene 35 preguntas cerradas relacionadas con los elementos teóricos discutidos en el estudio, a través de una encuesta muestral de 407 encuestados. A partir del estudio, se pudo identificar que, teniendo en cuenta factores que influyen en los hábitos de consumo como ingresos, salud, estilo de vida, medio ambiente y conocimiento al momento de comprar productos orgánicos, la especialización es la alternativa más favorable para el productor de productos orgánicos, ya que, al estar especializados en un solo tipo de producción, los alimentos presentan una mayor calidad, pudiendo satisfacer demandas más específicas y así aumentar sus oportunidades de mercado.

Palabras clave: hábitos de consumo; consumo sostenible; agricultura familiar; sostenibilidad.

## 1 INTRODUCTION

Family farming, rooted in the traditions of the land, represents the vital foundation of many communities around the world and is a practice carried out by groups of small farmers who develop on small rural properties, where production and labor are carried out by their own family. Family farming has always had polyculture as its basic characteristic, constituting over time a diversity of social forms, making it difficult to establish a standard model for this type of production, characterized by the intertwining of family production (Silva; De Hespanhol, 2023).

The search for sustainability and prosperity finds a powerful ally in the diversification of production, whether from public policies or other institutional or individual movements, are desirable, as long as they create positive impacts on the quality of life of the affected families, generating income possibilities that will expand access to livelihoods, creating positive consequences on the standard of living of the families and regions targeted by the initiatives. encouraging sustainable consumption (Fontoura *et al.*, 2022).

Specialization comes as a way to improve the sustainable development of family farming, providing conditions to obtain gains due to scale, better use of processing, storage and less intense transportation facilities, and cost reduction, and cost reduction, for these reasons producers seek specialization (Hansel; Bertolini; Ribeiro, 2022).

To consume sustainably is to assume an environmentally friendly behavior, a more conscious and intelligent consumption, to explore correctly and sustainably, to enjoy these goods without compromising future generations (Miranda *et al.*, 2022). Society's consumption habits have changed over time, showing itself to be increasingly conscious in some aspects, as variables such as health and environment are being consumption guides. Large corporations are already showing a greater concern with their production processes, because consumers no longer buy what they see in front of them (Prado; Moraes, 2020).

Considering the specialization and diversification of family farming and consumption habits, this study search to analyze whether the population values the consumption of organic products and will consider what is the best option between diversification and specialization for the organic food producer. So, the research question is: What is the relationship on the preference for the purchase of sustainable products considering diversification and specialization of family farming in the Municipality of Corbélia, PR?

## 2 THEORETICAL REFERENCES

In 1972, at the United Nations Conference on the Environment (UNCHE), held in Stockholm, the term sustainability emerged, which can be conceptualized as the ability to meet present needs without compromising the ability of future generations to meet their own needs (Brundtland, 1987). Sustainability goes far beyond environmental aspects and global effects, but also involves specific social, political and ideological debates that change between countries and regions, and it is therefore possible to understand it institutionally as a pressure anchored in different logics (Gümüsay; Claus; Amis, 2020; Lounsbury *et al.*, 2021).

It is up to institutions such as the State, as an actor that exerts great influence on organizations, to ensure formal control structures in relation to the adoption of sustainable measures (Delmas; Toffel, 2011). For Vidal, Araujo and Freitas (2018) Sustainability in the constitutional environment is the integrated fulfillment of the Sustainable Development Goals, as a fundamental principle of prevention and precaution, in order to consolidate ecologically balanced development.

Family farming plays a crucial role in this process and is present everywhere, regardless of the country, its history, or its political system. For Ferreira, Da Silva Cruz and Santana (2014), family farming is a fundamental segment for Brazil, as it has been contributing to the economic, social and environmental aspects, that is, attending to the aspects of sustainability and thus fighting poverty in the countryside, generating healthier food production and activities that do not harm the environment. Brazilian family farming has always adopted a diversity of social and economic reproduction strategies, which, according to Silva and De Hespanhol (2023), are central elements to understand the transformations of this social group for its survival and permanence in rural areas.

According to Tedesco (1999), family farming is one in which the family owns the means of production and, at the same time, is the one who performs the work necessary for the operation of the property. For Schneider and Cassol (2014), the family farmer is a family that works on a piece of land (with a few hectares and not always owned by them), developing agricultural activities, that is, generating agri-food production for self-consumption and, increasingly, for the market.

Data from Food and Agriculture Organization (FAO, 2018) indicates that about 80% of the world's food production comes from family farming, which accounts for 85% of the cultivated land in Asia, 83% in North and Central America, 68% in Europe, 62% in Africa, and 18% in South America. Similarly, Brazilian Institute of Geography and Statistics (IBGE, 2017) reports that 77% of rural establishments in Brazil, or 3.9 million properties, are classified as family farms, covering 23% of the area of all rural establishments in the country and employing about 10 million people. In the Southern Region of Brazil, there are 1.01 million agricultural establishments, contributing 28.8% of the value of production and occupying 12.5% of the national agricultural area. Of these establishments, 84% fall into the category of family farmers.

In Brazil, the theme of family farming was regulated by Law No. 11,326, of July 24, 2006, defining family farmer as the individual who practices activities in rural areas, together with family labor in the economic activities of the establishment, as well as directs the establishment in a family team and that the income predominantly originates from the economic activities linked to the establishment (Schneider; Cassol, 2014).

Family farming stands out for its great diversity, especially for the production of corn, cassava, dairy farming, beef cattle, sheep, goats, vegetables, beans, sugarcane, rice, pigs,

poultry, coffee, wheat, castor beans, fruit and vegetables. Production diversification emerges as an alternative strategy for subsistence and stabilization of income flow for rural production, considered as a dynamic environment full of instabilities and uncertainties (Makishi; Zacareli, Veiga, 2016). Farmers who practice the diversity of family production are motivated by the growing demand for the markets for organic products that are rapidly expanding, in addition to emerging as an alternative for rural producers who had difficulty finding opening in the markets (Ferreira; Balcewicz Junior; Bertolini, 2023).

According to Vielmo, Drumm and Deponti (2017), in their research on the management of family farming, pluriactivity, diversification of production and organic agriculture, they define it as a strategy that rural producers use as an alternative for survival, as it is the way found to escape the dependence that the market imposes, reducing the rich in the face of an environment of instability that agriculture finds itself in. For Carneiro and Montebello (2021), agricultural diversification is presented as a strategy for farmers to deal with various types of risks, such as price, productivity, lack of inputs in the market, market risk for not finding a buyer for their product.

For Moreira and Binotto (2014), in a research carried out on the diversification of agronomic crops as a sustainable form of family farming, a complex and diversified production system presupposes the maintenance of annual and perennial polycultures associated with animal husbandry, becoming more stable by increasing the capacity to absorb the disturbances inherent to the agricultural production process, especially market and climatic fluctuations, thus increasing its capacity for self-reproduction, also pointing to an alternative increasingly recognized worldwide as an option to promote sustainable rural and agricultural development.

Diversifying production or concentrating efforts through specialization in agricultural activities are frequent choices from the point of view of rural producers. This decision can lead your venture to success, in the form of greater economic return on the activity, or even to failure, with irrecoverable losses. In an effort to achieve economic profitability, the producer needs to decide which products to produce and which inputs and technologies to adopt. These choices are accompanied by high economic and climatic risks, present in agricultural activities. Profitability can be increased through productive specialization and productivity gains, resulting in more product and income. Among the causes of productivity growth, in addition to technological changes, are economies of scale, which allow the expansion of production through greater specialization in the use of facilities and equipment.

Family farming uses criteria for exploitation not only from the angle of production and economic profitability, but also considers the needs of the family and, unlike the employer model, in which there is a separation between management and work, in the family model they are solely related (Hecht, 2000). The rural environment, for this segment of the population, is not only a space for production, but also for life. To ensure their survival and social reproduction in rural areas, family farming adopts some strategies aimed at family units or production units (Apablaza; Blasso; Plein, 2021).

Tambosi *et al.* (2014) identify that there is a great concern with the issue of environmental awareness, sustainable consumption and the intention of ecological products, which are factors that directly influence the time of consumption. According to Almeida, Junqueira and Dias (2017), the reason that leads consumers to make the decision to purchase organic food is the concern with health, the search for organic food, which is characterized by the quality of the product, linked to the improvement of quality of life.

Rosa Borges *et al.* (2019), when analyzing the influence of sustainable consumption on the purchase decision, found that the sustainable attitude is related to the purchase intention because consumers choose organic products because they cause less damage to the environment, when related to sustainable attitudes and environmental awareness, consumption is not due to environmental concern, but rather for reasons that consuming organic products are healthier. Ferreira and Coelho (2020), in their research on the determinants of organic product acquisition by Brazilian households, found that location, lifestyle habits, and diversification of food for consumption were predominant.

For Feyh, Lizana and Carvalho (2022), the main reason for consuming organic products is the seasonality of the products, that is, they buy seasonal products. The consumption of these products is due to issues related to health and the environment, but even knowing these benefits, not everyone consumes them due to the price, accessibility, and income of consumers (Andreatta et al., 2020; Miranda et al., 2022).

Buquera and Marques (2021) explain that consumers look for places that offer a more complete purchase with a lot of diversity of products for consumption, avoiding being separated between different points of sale. So, there is difficulty of access to fairs that offer quality products (Miranda *et al.*, 2022). For Fernandes *et al.* (2020) also emphasize that the knowledge about food, availability and price are causes that influence the consumption of products of organic origin.

Pasqualotto and Sampaio (2021), when researching the process of purchasing organic products during the COVID-19 pandemic, reported through interviews a strong trend of consumption of products of organic origin linked to environmental protection and the health of producers and consumers, but due to the risk of contagion during the pandemic, people gave up attending physical stores and fairs, migrating to online shopping. In the Table 1, you can see the variables that influence the consumption of organic products, cited by each author.

Table 1 – Variables that influence the consumption of organic products

Author	Variable
Andreatta et al. (2020)	Health, Environment, Price and Accessibility
Rosa Borges et al. (2019)	Environment & Health
Buquera, Marques and Franco (2021)	Product Diversity and Accessibility
Fernandes et al. (2020)	Quality, Ecological Awareness, Knowledge, Availability and Price
Ferreira and Coelho (2020)	Diversification, Lifestyle Habits and Product Diversity
Feyh, Lizana and Carvalho (2022)	Product Seasonality
Miranda et al. (2022)	Accessibility and Health
Pasqualotto and Sampaio (2021)	Environmental Protection & Health
Prado and Moraes (2020)	Health, Product Quality, Lifestyle, Cultural Issues, Price and Environmental Concern
Tambosi, Mondini and Borges Hein (2014)	Environmental Awareness and Sustainable Consumption
Almeida, Junqueira and Dias (2017)	Health, Product Quality and Life

Source: Literature search (2023).

The variables found by the authors that influenced the consumption of organic products were: health, quality of life, environmental awareness, price, sustainable consumption and lifestyle.

#### 3 METHOD

The research is characterized as quantitative, as it employs quantification both in the modalities of information collection and in its treatment through statistical techniques (Richardson, 1999), and exploratory because it provides a general view of a given fact (Gil, 2008).

A structured survey questionnaire with various scales was applied, containing 35 closed questions related to the theoretical elements. To create the questionnaire, the table "Variables that influence the consumption of organic products" was used to prepare the questions. The questionnaires were prepared and made available online, through the Google Forms platform, from December 30, 2022 to May 30, 2023.

To define the sample size, according to Barbetta, Reis and Bornia (2004). Considering the population of Corbélia, PR, with approximately 17,117 inhabitants (N), according to the latest survey by IBGE (2017), considering a confidence level of 95% and a sampling error of 0.5% (E0), a sample result of 407 respondents is reached.

After data collection, descriptive statistical analysis was performed, using tables to represent the results obtained through the questionnaire. The results were tabulated in the EXCEL software to organize the results. To perform the correlation analysis of the questionnaires, the PSPP – GNU Project software was used. Where Pearson's correlation was applied, which is a statistical measure that quantifies the strength and direction of a linear relationship between two continuous variables.

Pearson's correlation coefficient, usually denoted as "r", variables from-1 to 1. The result r is a measure that indicates the strength and direction of the linear relationship between the two variables. A value close to 1 or -1 suggests a strong correlation, while a value close to 0 indicates a weak correlation.

It is important to note that Pearson's correlation evaluates only linear relationships and does not capture nonlinear relationships. In addition, correlation does not imply causation, i.e., the fact that two variables are correlated does not necessarily mean that one causes the other.

# **4 DATA ANALYSIS**

The 407 survey respondents were qualified according to table 2.

Table 2 – Profile of Respondents

Category	Answers	Quantity	%
Gender	Female	241	59.2%
	Male	166	40.8%
Marital status	Married	150	36.9%
	Single	208	51.1%
	Separate	27	6.6%
	Divorced	19	4.7%
	Widower	3	0.7%
Age group	Under 18 years of age	22	5.4%
	19 to 25 years old	120	29.5%
	26 to 35 years old	171	42.%
	More than 35 years	94	23.1%

Category	Answers	Quantity	%
Schooling	Elementary School	7	1.7%
	Middle school	71	17.4%
	Graduation	184	45.2%
	Postgraduate studies	145	35.6%
Income	up to 1 minimum wage	30	7.4%
	from 1 to 3 minimum wages	159	39.1%
	from 4 to 5 minimum wages	118	29%
	from 6 to 10 minimum wages	100	24.6%

Source: Prepared by the authors.

About regarding not buying from a company that shows disrespect for the environment, on a scale where 1 (one) is never and 7 (seven) is always, 21.1% marked the level of influence as 5, while 20.3% marked 7 where they refuse to buy from a company that shows disrespect for the environment, 19.4% marked option 4, 12.4% marked the level of influence as 5, 11.2 marked option 3 and less than 10% marked option 2 and 1 on the scale.

For Diniz (2022), in his research on determinants of intention to purchase organic products, consumers with a more positive attitude tend to incorporate a greater concern for the environment. According to Yin; Qian; Singhapakdi (2018), consumers make an ethical assessment, as they consider that their actions may result in unfavorable consequences for the environment. In this research we found results similar to those of the authors mentioned above, where consumers show more empathy for companies that show respect for the environment, consuming products of organic origin free of chemicals, from this we can see that the specialization of organic production is favorable to this result, because the producer focuses on producing only one type of product with higher quality.

In an analysis about changing brands to buy from companies that show greater care for the environment, on a scale where 1 (one) is never and 7 (seven), 25.3% answered that they always choose companies that show more care for the environment, 18.2% answered 5 as a level of influence on choosing another brand that values the environment more, 17.7% answered 4 as the level of influence, 13.3% answered 6, 11.1% answered 3, 8.1% marked 1 and 6.4% marked 2.

According to Tambosi *et al.* (2014), environmental awareness determines the form of consumption, as consumers have started to consider environmental variables when making their purchases, preferring environmentally friendly products end up pressuring organizations to produce responsibly and without degrading nature.

Sustainable consumers modify their purchasing behavior to reduce their environmental impact, as they believe that their actions make a difference in the world, so they avoid consuming products that consume a lot of energy, have excessive or disposable packaging, contain ingredients from habitats or endangered species in their production product, and/or that negatively affect other individuals (Abalroado, 2022).

The change of brand at the time of purchase is influenced by the environment, where more than 50% of the sample shows concern for the environment, this factor is determinant when consuming, the authors above in their research also demonstrate this type of result collaborating with the results found.

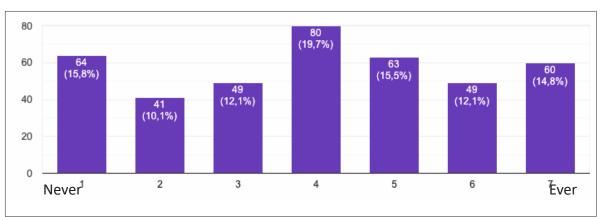
Regarding lifestyle as an influencer in the purchase of organic products, even if more expensive than regular products, 19.8% marked option 4 which would be middle ground, 19.5%

chose option 1, where lifestyle is not a factor that influences the purchase time, 16.5% marked option 5, are more favorable to lifestyle as an influencing factor when buying organic products, 13.3% chose option 3 were not very favorable to the influence, only 11.9% who marked option 7 considered themselves totally influenced by their lifestyle at the time of purchase, 10.1% marked option 2 with very little influence and 8.9% marked option 6 being influenced at the time of purchase by lifestyle.

For Miranda *et al.* (2022), in their research on the sample with family income, it was predominantly higher than 4 minimum wages, for Pinho, Oliveira, Menezes (2018) the income of their sample was above 4 minimum wages, Passos and Fornazier (2018) had the same results but in their research more than 50% of the sample had an income above 4 minimum wages; to Buquera and Marques (2022) the income was above 3000.00 reais per month, showing then that the factor that determines paying for an organic producer is the salary, not lifestyle.

Lifestyle does not demonstrate a significant influence on the choice of products of organic origin, which is proven by the authors above in their research, factors that demonstrate an influence at the time of purchase are the income of consumers are not lifestyle. In this case, we can see that specialization is not related to lifestyle, but to the income of the consumer, who is willing to pay the price for a product with higher quality and benefits.

Regarding the preference to pay more for organic products due to the benefits resulting from their consumption, the results can be found in graph 1.



Graphic 1 – Intent to pay more for organic products for the benefits envisioned in consuming them rather than consuming non-organic products

Source: Research.

For Miranda *et al.* (2022) found that the lower frequency of consumption of organic products is directly related to the purchasing power of families, taking into account that these products have an added value because they do not use pesticides. According to Fernandes *et al.* (2020), paying more for a product of organic origin is related to the benefits it brings to your health, this interferes with the cost-benefit ratio because in their research it was identified that the price of organic food does not influence consumer buying behavior.

So, paying more for an organic product is indeed related to the benefits found in them, the authors above prove this result in their research where they show that consuming organic products is related to health care and quality of life, so the producer who specializes in producing

a product with higher nutritional quality, Free of chemical substances, it ends up finding this audience that is willing to pay its price.

About the importance of the brand of an organic product, 16.7% checked option 1 where it shows that the brand of an organic product is not relevant at the time of purchase, 16.2% opted for option number 5 where they are influenced by the brand, 14.5% checked option 6, 13.8% say that the brand is relevant at the time of purchase by checking option 7, 10.1 marked answer 2 and 8.8% say that the brand does not have much influence on the purchase of organic products.

For Andreatta *et al.* (2020), the brand of organic products is an unimportant or even indifferent factor in their research sample because they are more concerned with the quality of the products, the feeling of security, and health care (Feyh; Lizana; Carvalho 2022) and absence of chemicals (Lunardi; Rocha; Sama 2020).

The organic product brand has a certain relevance for the survey respondents, unlike the authors mentioned above, where the concern was for the quality of the products, health benefits and the absence of chemicals. Producers who choose to diversify their production have more returns in those cases where the brand has a determining factor in the choice of consumption.

The concern with health is shown as a favorable factor for the purchase of organic products, in 17.7% of the respondents of this survey, as they marked option 5, 16.7% opted for answer 4 where they do not feel influenced by health when buying organic products, while 16.5% who were in option 1 do not buy organic products for health reasons, 14% marked answer 3 where they are almost not so influenced, 12.6% who marked answer 5 are influenced by health at the time of purchase, 11.3% marked answer 7 where they are buying organic products due to health concerns, 11.1% opted for answer 2 where they do not suffer from the influence of health at the time of purchase.

According to Feyh, Lizana and Carvalho (2022), the behavior of consumers of organic products is directly linked to their concern with health and quality of life. For Almeida; Junqueira; Dias (2017), one of the factors reported as important in the purchase decision was health care through a diet free of toxic chemicals. For Tambosi *et al.* (2014), in their research carried out with university students, the greatest concern is related to environmental issues, such as environmental awareness, sustainable consumption and intention to purchase ecological products.

The sample is well divided between consumers who choose organic products primarily for health benefits and those who have various reasons for consumption. Research by the authors cited above confirms that health benefits significantly influence purchase decisions, but consumers also consider other factors. Specialization in product benefits is advantageous for health-focused consumers, while diversification might be preferable for those with varied motivations.

Knowledge at the time of purchase of an organic product, for 18.3% who answered option 4, is an intermediate factor, for 17.3% who answered option 5 are already more favorable to knowledge, 16.1% who answered option 1 knowledge about organic products is not a factor considered at the time of purchase, 15.1% who answered option 7, 12.4% who answered option 6 consider knowledge a determining factor at the time of purchase, 10.4% chose both option 2 and 3, knowledge does not determine the purchase of organic products.

In the study carried out by Feyh, Lizana and Carvalho (2022), the consumption of organic products is more related to the level of education, as the higher their level of conscious behavior. Towards Miranda *et al.* (2022), Passos and Fornaizer (2018) and Almeida; Junqueira; Dias (2017),

the degree of knowledge is directly related to consumption habits.

The answers show that respondents choose organic products because of the knowledge they have about the product, as well as the authors cited above buy this result by reporting that the higher the level of education or level of education, the greater the propensity to consume organic products. This result is favorable to the specialized producer because his consumer is aware of how his production processes work and the care inserted in them, thus seeking to consume his products.

The influence of other people's opinions on the purchase of organic products showed that for 19.7% who answered option 7, it was a factor that does not interfere with the purchase, for 18% who answered option 4 is an intermediate factor, 15.5% who answered option 1 and 5 where people's opinion interferes in their buying behavior; On the other hand, in option 6 they suffer little interference respectively, 13.1% who answered option 6, suffer from the interference of the opinion of others, 9.1% chose both option 2 and 3, the opinion of others makes some kind of interference at the time of buying organic products.

For Ceretta and Formming (2011), consumer behavior is revealed through interpersonal interference, since they decide to buy products or services based on what they consider others to expect from them, which may be influenced by cultural, social, personal and psychological factors (Kotler; Keller, 2006). For Feyh, Lizana and Carvalho (2022), the behavior of the consumer of organic products has similar motivations with the perspective of the individual's values, which seek quality of life, health and well-being.

The results of this research reveal that the opinion of others has an influence on the purchase of organic products, according to the authors above, several cultural, social, personal and psychological factors are influential when purchasing products of organic origin, which proves the data above, due to this the increase in consumption of organic products is favorable to the specialized producer.

The lifestyle option is a factor that influences the lifestyle of the respondents, since 25.9% who answered option 1, that lifestyle is a primary factor at the time of purchase, for 18.2% who answered option 4 is an intermediate factor, 16.5% who answered option 3 suffer from the influence of lifestyle, 13.2% who answered option 2 prioritized lifestyle, 10.2% chose option 5, 9% chose option 6 and 7.7% chose option 7 regardless of lifestyle suffer little or never from this type of influence.

According to Fernandes *et al.* (2020), Brazilians purchase organic products due to the non-use of pesticides, environmental preservation practices, and characteristics such as taste, color, and smell. According to the research of Feyh, Lizana and Carvalho (2022), the motivations found for the consumption of organic products are aligned with those of sustainable consumption, which are determined by practices that favor a higher quality of life.

The results show that the respondents mostly never purchase products of organic origin due to their lifestyle, the authors above find different results where the option for this product comes from not using chemicals in its production, because they favor the quality of life and characteristics such as taste and smell. In this case, diversified producers would be more valued, as they would have more product options to offer to the consumer.

In relation to prices as a factor that determines the purchase, the results are partially divided. Regardless of whether the product is organic or not, what matters is the price, for 19.1% who answered option 4, it is an intermediate factor, 18.1% who answered option 5 where the price

already has some decision at the time of purchase, 16.6% who chose option 1 the price is not a factor that determines the purchase of an organic product, 13.9% who chose option 3 The price has little interference in the choice, 11.9% who chose option 6 the price has a good interference in the choice of purchase, 10.4% who opted for option 2, the price has very little interference in the decision, 9.9% and chose option 7 the price is paramount in the choice of organic products.

For Almeida; Junqueira; Dias (2017), in his research, some of the interviewees did not care if the product was organic or not, the explanations were that because they did not consume it was indifferent, so it is visible that they only acquired the product for an ease at the time of purchase. For Feyh, Lizana and Carvalho (2022), the consumption of organic products is due to the differentiated flavor of the products and the nutritional value of these foods.

For the authors mentioned above the nutritional value is determinant when choosing an organic product, while for others they do not care if it is organic or not, they only acquire it for some kind of ease at the time of purchase. For specialized producers, the nutritional values would have more consumers, while consumers who opt for facilities would favor diversified producers, as they offer more quantity of products.

The option of organic products is a primary factor when buying from the 18.5% who answered option 1, for 14.2% who answered option 2, organic origin is an important factor when choosing products. 10% who chose option 3 shows that they are influenced by the origin of the product. For 20% who answered option 4 is an intermediate factor, 16% who answered option 5 do not suffer from the influence of the origin of the product, 9.5% who selected option 6 and 11.5% who chose option 7 shows that they do not care about the origin of the product at the time of purchase.

For Almeida; Junqueira; Dias (2017), the attributes that most influence the consumption of organic products are visual aspect and certifications, as this characteristic refers to the credibility of the products. According the results, the sample is influenced to acquire organic products due to their health benefits, while for the author above the result was different in his research, the visual aspect, certifications are factors that refer to credibility, making them more easily consumed. Based on this result, the diversified producer would be the best option, because the importance of consumers is focused on the credibility of the brand.

For 19.2% of the people who chose option 4, the impacts on the environment have an intermediate factor in the choice of organic products, however 18.5% of the population who selected option 5 the environmental impact already has an effect on the choice of some products. For 16.5% of the population who selected option 1, the environmental protection factor is a decision when choosing organic products, for 12% who opted for option 7 and 11.5% who opted for option 6, whenever they go shopping they do not worry about the environment, for 11.7% who opted for option 3 and 10.7% who opted for option 2, the environment is a point to think about when buying.

Feyh, Lizana and Carvalho (2022) in their study identified that people who are more connected to environmental issues have a greater predisposition to sustainable consumption and this type of consumption is leading organizations to produce without degrading the environment. According to Almeida; Junqueira; Dias (2017) research, 23% of the responses showed a concern for the environment, but only 6% considered it important for the organic production method not to harm the environment.

The respondents always weigh in on the impacts caused on the environment when they go to purchase a product, this is proven by the authors above who in their research found that

people currently take environmental issues as factors to be evaluated at the time of consumption, so this result is favorable to the producer specialized in organic products, because your product will only have value if it respects environmental issues.

For 18.5% of the people who chose option 1, health concern does not interfere at the time of purchase, however 18% of the population who selected option 4 health concern is an intermediate factor. For 18.3% of the population who selected option 5, worry has as an influence at the time of purchase, for 11.8% who opted for option 6 and 11.3% who opted for option 7, concern with health always or almost always interferes in the choice of purchase, for 11.3% who opted for option 2 and 10.8% who opted for option 2, concern for health has little relevance in these cases.

The survey showed that people are concerned about their health, and because of this they seek to consume more organic food and this can be proven by the authors above in the results of their research, which demonstrate health as a determining factor in the choice of organic products, favoring the producer specialized in organic products.

Knowledge about organic products is a factor that never determines the decision at the time of purchase for 16% of people who checked option 1, just as it does not have as much influence for 11.3% of the population that opted for option 2; 13.8% answered option 3 that they do not use their knowledge at the time of purchase. For 21.1% who answered option 4 is an intermediate factor, for 13.8% who checked option 5 they use little knowledge to choose products at the time of purchase, while 13.8% who checked option 6 knowledge influences when choosing products and for 10.3% of the population knowledge in organic products determines the choice at the time of purchase. The results show that knowledge about organic products is an important factor when choosing to purchase products, but it is not predominant, since knowledge about these products and their choice varies according to the respondents' education, income, habits, and age.

In the research conducted by Feyh, Lizana, and Carvalho (2022), the higher the education level of the sample, the greater the conscious predominance when purchasing an organic product. According to the study by Fernandes, Lunardi Rocha and Sama (2020), variables such as schooling, income and age are apparently not related to a higher consumption of organic food by the sample.

For 45% of the people who chose option 1, society does not interfere when purchasing organic products, however 6% of the population who selected option 7 receives great pressure from society at the time of purchase. For 12.3% of the population who selected option 2, and for 7% who chose option 3, social pressure is not a determining factor at the time of purchase, for 9% who selected option 5, societal pressure indirectly influences the time of purchase and 7% of the population who chose option 7 suffer from this influence and the other 7% who selected option 4 usually do not feel influenced by society at the time of purchasing the products.

For Ceretta and Formming (2011), society has an influence on consumption habits, because cultural and regional factors are opinion makers, as they are passed down from generation to generation, showing that consumption brings benefits to both health and the environment. The sample indicates that consumers do not feel pressured by society to purchase organic products, while the authors mentioned above found the opposite result, showing that society does influence consumption habits. In this case, diversification is more favorable, as consumers buy what they find most advantageous.

Healthy awareness when choosing an organic product, for 18.4% who answered option 4, is an intermediate factor, for 17.6% who answered option 5 are already more favorable to

healthy awareness, 12.3% who answered option 1 awareness about organic products is not a factor considered at the time of purchase, 20.4% who answered option 7, 13.6% who answered option 6, consider it a determining factor at the time of purchase, 10.6% chose both option 3 and 6.5% chose option 2 where they demonstrate that healthy awareness does not determine the purchase of organic products.

For Miranda *et al.* (2022), it was found that most of their sample intend to increase the consumption of organic food, leaving evidence of a search for healthier and more ecologically correct consumption, which shows a change in people's eating behavior. Towards Andreatta *et al.* (2020), healthy awareness is very strong, as 87% of respondents are willing to pay more for organic products, due to the health and environmental benefits.

The research shows that healthy awareness is a predominant factor at the time of purchase, the authors cited above bought this result considering that people seek a healthier consumption by improving their eating habits more without much concern for environmental issues, so the specialization of organic products is more favorable.

The brand of the product for 15.9% of the population who opted for option 1 never interferes with the purchase, for 14.7% who answered option 7 was a factor that interferes when choosing products, for 19.7% who answered option 4 is an intermediate factor, 8.9% who answered option 2 show that the brand hardly interferes with the purchase, and 7.8% who checked option 4 have slight interference from the brand The interference, unlike the 15.7% individuals who checked option 6 where respectively the brand has greater credibility at the time of purchasing the product, option 5 was chosen by 17.7% of the population which shows that eventually the brand matters at the time of purchase.

In the research carried out by Feyh, Lizana and Carvalho (2022), consumers take into account the information present on the label of the products marketed as certification seals and information such as the name and contact of the producer, this information added to the products increases the intention of individuals to consume this product. For Almeida; Junqueira; Dias (2017), in his research, some interviewees reported that even the product containing certifications, when analyzing the way, it is presented, causes distrust that that product is really certified.

The results show that the brand generates credibility at the time of purchase, unlike what the authors above found in their research, for him, consumers take the information contained in the labels very seriously, such as certifications, where it is produced, this ends up giving confidence at the time of purchase. In this case, the specialization of the organic producer is more favorable, as the food receives certifications that prove its quality.

In the correlation analysis, the variables "I prefer to pay more for organic products because of the benefits I see in their consumption, than to consume non-organic products" and "my lifestyle influences me to buy organic products, even if they are more expensive than regular products" have a correlation value of 0.81, which according to the table show a strong correlation. In this correlation, we found a public with an income above 4 minimum wages that is willing to do this for the benefits found in the products, mainly influenced by the quality of life, respondents who value the consumption of these products have this factor related to their knowledge and the environment in which they were created.

The correlation of the variables "I only buy organic products because I care about my health" and "I prefer to pay more for organic products for the benefits I see in consuming them than to consume non-organic products" have a correlation value of 0.70, which according to the table

show a strong correlation. The health factor and quality of life are the great influencers of this relationship, as the consumption of organic products is motivated by the benefits that this type of products bring to your life.

In the analysis of the correlation between the variables "Regardless of the opinion of others, I buy organic products" and "I prefer to pay more for organic products for the benefits I see in their consumption than to consume non-organic products" present a correlation value of 0.73, which according to the table present a strong correlation. The concern about consuming organic products is related to health, not to the opinion of others, because not even the price can reduce the consumption of organic products.

The correlation of the variables "Regardless of the opinion of others I buy organic products" and "I buy organic products because of the knowledge I have about them" have a correlation value of 0.76, which according to the table show a strong correlation. The above questions are correlated because knowledge favors the consumption of organic products, and the opinion of others does not interfere with this because the respondents recognize the benefits that the consumption of organic foods has.

Currently, consumers of organic products are increasingly aware of their benefits in general, this type of sustainable consumption has gained many followers, we have witnessed changes in the population's consumption habits influenced by the preservation of the environment, income, sex, lifestyle, health concern, among others.

In this context, the present study sought to verify the best production style between diversification or specialization based on the consumption habits of the residents of Corbélia, PR. The results showed a strong influence of health, this concern with health is one of the main motivators for the consumption of organic products, as they believe that food grown without the use of pesticides is healthier and more nutritious. Another factor was knowledge, well-informed consumers understand the impacts of production methods on their health and the environment so they are more likely to purchase organic products.

The protection of the environment is a key factor, consumers are increasingly concerned about the negative impact caused by agricultural productions and therefore opt for organic products claiming that the more they consume pesticide-free products, the more they will be contributing to a healthier lifestyle in the long run. Income proved to be a determining factor in the choice of organic products, as they have a higher cost for the consumer, those who prioritize this type of food claim that quality and health benefits are the reasons that influence this consumption and do not mind paying more for these products. These were the factors that influenced Corbélia consumers. Most of these respondents are female, single, aged between 26 and 35 years, with a level of education, graduation and income between 1 and 3 minimum wages.

In the correlation analyses carried out from the questionnaires, we can conclude that the variables with the highest correlation factor found are favorable to the specialization of organic production, because the consumer who has knowledge about the product knowing the benefits of consumption for his health, chooses to pay more for products of organic origin.

Farmers who specialize in organic produce often develop specific expertise in food production, this results in high quality as they are grown according to agricultural practices that emphasize sustainability. With increased awareness of health and the environment, specialized farmers can position themselves to meet this specific market demand, thereby increasing their market opportunities and better prices for their products. Organic certifications can secure a

competitive advantage, which increases consumer confidence and opens doors to markets that value certifications that value certified organic products.

From these factors we can conclude that the specialization of organic production is favorable for producers who practice it, because it is a product that does not use chemical fertilizers and fertilizers, prevents the health of those who consume it, consequently, protects the environment, with this the product has greater commercial value, and can be marketed with a higher value than conventional, thus generating a higher income for the producer (Milverstet; Fachinello, 2019).

#### **5 FINAL CONSIDERATIONS**

Based on the results of the research, evaluating the issues of sustainability and consumption habits, the specialization is more favorable for organic producers in the municipality of Corbélia, PR, due to factors such as price, quality of life and protection of the environment, which were presented as consumption markers by the respondents, where they choose to pay more for organic products, referring to health benefits. On the other hand, producers are able to increase their income and expand their business, generating more value.

Based on the results obtained here, we can suggest to producers that they reinforce the benefits of the consumption of this type of food providing better health, pesticide-free production. The benefits found in this research were the union of aspects such as sustainable consumption, quality of life, health, sustainability and specialization of family farming. The results of this research show the factors that matter and influence consumers when purchasing a product of organic origin, which serve as data to be analyzed by organic producers.

To suggest future work, we suggest more specific studies on specialization and diversification of organic producers, because this type of production faces several risk factors in its production and we analyze here factors that influence the consumption of the final product, with other research we could further refine our knowledge helping producers to have more plausible answers. Another limitation found was that most of the literature is focused on the specialization and diversification of limited partners, as they have a greater representativeness in the economic scenario.

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