



Cultivating demand: A systematic literature review on agroecology's role in consumer behavior

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ABSTRACT

This paper presents a systematic literature review that synthesizes existing empirical research on consumer behavior toward sustainable and agroecological food products. Following the PRISMA guidelines, the review examines evidence from diverse geographical contexts to identify key factors influencing consumer choice and purchasing behavior. The overall aim is to determine critical factors driving consumer choice and how different marketing approaches are effective. Through the examination of evidence from different geographical settings and demographic groups of consumers, the review captures how price, environmental consciousness, health motivations, and demographic characteristics (like age and gender) interact to shape consumer choice for sustainable food products. The collected evidence shows that there is a clear interest in sustainable products, but important obstacles such as premium price and insufficient knowledge keep it from widespread adoption of agroecological behavior. On the contrary, attributes such as raised ecological awareness, self-perceived health benefits, and focused demographic promotion power consumer interest and intent to adopt sustainable and agroecological products.

The review also points to critical gaps in literature, most notably an increase in multi-disciplinary research, more targeted and focused studies of underdeveloped regions, and a fuller understanding of how consumer behavior is altered by digital media. The knowledge deficits reinforce directions of future research, which would enable further, improved methods for stimulating sustainable consumption. The examination presents an integrative summary of existing knowledge of sustainable consumer behavior and indicates practical recommendations for businesses, policymakers, and educators working to increase sustainable practices adoption. Overall, the review reveals a gap between positive consumer attitudes toward agroecological products and actual purchasing behavior, highlighting the importance of targeted policies and marketing strategies to foster sustainable consumption.

1. Introduction

1.1. Background information

Agroecological production methods have become crucial for sustainable growth in agriculture, based on the worldwide issues of climate change, food security, and biodiversity loss (Akanmu et al., 2023).

Sustainable food systems require comprehensive assessment methods that account for environmental, economic, and social dimensions of agroecological production (Plokhikh et al., 2023). Agroecology is an integrative concept that includes scientific principles, farming methods, and a socio-political movement that aims to enhance sustainable food systems by using ecological principles in the agricultural sector (Vikas & Ranjan, 2024). Agroecology emphasizes biodiversity, efficiency,

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sustainability, and the interconnectedness of environmental, economic, and social dimensions of agricultural production (Alum, 2025). Agroecology is referring not only on agricultural practices, but also on scientific principles, a collection of methods, and a societal movement (Çakmakçı et al., 2023; Melash et al., 2023; Wezel et al., 2014). This strategy encourages the development of sustainable farming systems that minimize the need for external resources such as chemical fertilizers and pesticides, which have negative impacts on the environment and human well-being (Gamage et al., 2023; Muhie, 2022).

In this literature review, the terms “agroecological products” and “sustainable products” are not exactly synonymous, there is some distinction. More specifically, agroecological products are those that come from agricultural production systems that intentionally use agroecological principles (Akanmu et al., 2023). These principles include, among others, biodiversity, low external inputs, ecological integration and the use of local resources. Sustainable products, on the other hand, are a more generalized and broader group that includes any products that bear a relevant label or are produced using methods that meet environmental, ethical and/or social sustainability standards (Melash et al., 2023). In this case, reference is made to organic, ecological, locally produced food or products that have a production process that requires low carbon emissions. Therefore, agroecological products are a type of sustainable product, but not all sustainable foods come from agroecological systems.

At the same time, there has been a significant evolution in consumers' preferences towards environmental sustainability (Gamage et al., 2023). Modern consumers have become more informed and aware of their consumption patterns' environmental aspect (Jung and Kim, 2023; Panizzut et al., 2021). This shift in consumer behavior is reflected into the trend where consumers not only search for organic products, but also for locally produced food, products cultivated with sustainable practices, and non-Genetically Modified Organism (GMO) products (Wojciechowska-Solis and Barska, 2021). Consumers nowadays are more concerned about the farmers' sustainable practices and local communities' and ecosystems' environmental balance (Sánchez-Bravo et al., 2021). At the same time, consumers are more aware of the application of “smart technologies” used in terms of the achievement of a more agroecological and sustainable production (Bonioli and Bazzani, 2025; Nichifor et al., 2025). In the context of agriculture, “smart technologies” refer to digital and data-driven tools (such as Internet of Things (IoT), sensors, artificial intelligence (AI), precision agriculture systems, and decision-support platforms) that enhance farm management, resource efficiency, and sustainability outcomes (Avila and Barbosa, 2025). Such technologies increasingly influence transparency, traceability, and information availability, which directly affect consumer perceptions, trust, and willingness to purchase agroecological and sustainable food products. (Kirubakaran et al., 2025; Soundara Rajan and Wani, 2025).

These consumer preferences suggest the potential for a positive paradigm shift in the agriculture sector (Coleman et al., 1996). Researchers who are working on agroecology could reform the market model and adjust the farming sector to ecological systems and a fair economic system by emphasizing customer demands (Mehrabi et al., 2022). Thus, it is unclear how much agroecological methods affect consumer agreement with farmers and market potential. In the present review, consumer behavior refers to the process by which individuals or households acquire agroecological or sustainable food products and make decisions about the food products they will consume. The concept of ‘cultivating demand’ is used to describe the process through which the awareness, preference, and purchasing intention of consumers for agroecological food is built through information, experience, and market exposure.

The present systematic literature review aims to delve into the link between the adoption of agroecological practices and consumer behavior. In other words, the study will examine how consumer awareness and preferences, as well as actual purchasing behavior, are

affected by the knowledge and exposure to agroecological practices. The present study aims to find out whether consumers receive marketing information or whether they are capable and willing to support the development of sustainable agriculture. Within this broad sustainability context, the present review concentrates on food production systems, with particular attention to agroecological farming practices and their implications for consumer behavior. The results of this study are very important not only for consumers, but also for all the stakeholders of the agricultural sector.

Consumers' beliefs can affect the knowledge about what farmers need to do to meet the needs of the market. Policymakers need to understand their role by making rules that support sustainable farming. This review tries to make a big difference in understanding of how agriculture can be made more sustainable based on consumer demand by combining existing research on how agroecological practices affect consumer behavior. This is not only important for the long-term survival of local farms around the world, but also for meeting global food needs in a way that is both ethical and sustainable.

1.2. Problem statement

Despite the growing global interest in the application of agroecological practices, there is a large gap in understanding the impact of these practices on consumer awareness. The agricultural sector and mainly producers have an increasing need to adopt sustainable production methods in order to address environmental challenges, understanding whether and how these methods satisfy and influence consumer behavior is very important. Previous literature has mainly examined agroecological practices from an environmental and production perspective, creating an imbalance between what farmers produce and the uncertainty of what consumers prefer.

Furthermore, it is worth noting that there has been little research into how market dynamics are shaped by consumer demand for more sustainable products, specifically with regard to products produced through agroecological practices (Qalati et al., 2024). Although previous studies have shown that some consumers are willing to pay more for food labeled as organic (Annunziata and Mariani, 2018; D'Amico et al., 2016; Hu et al., 2024; Jaramillo-Villanueva et al., 2025; Jürkenbeck and Spiller, 2020; Prakash et al., 2023; Van Doorn and Verhoef, 2011), sustainable (Behe et al., 2013; Hoek et al., 2021; Mouchtaropoulou et al., 2024; B. Torquati et al., 2018a; B. Torquati et al., 2018b; Verain et al., 2015; Young et al., 2010), or as ethical (S Anders et al., 2023a; S. Anders et al., 2023b; Berki-Kiss and Menrad, 2022; Ghvanidze et al., 2016; İnan and Konyali, 2025), the knowledge about which specific agroecological practices influence consumers remains largely unknown. Recent systematic reviews have also looked at the influence of green marketing strategies on consumer behavior in the context of sustainable food, which has shed new light on the changing theories and future research directions. (Irfan and Bryła, 2025).

Although there is a significant body of research on the topic of sustainable food consumption, there is a lack of integrative review that explicitly establishes the relationship between agroecology and consumer behavior. In this review, the present systematic review attempts to fill the gap by examining the existing body of research in order to establish the relationship between agroecology and consumer behavior.

Based on this, this knowledge gap is a significant obstacle for producers who want to follow agroecological practices. At the same time, it affects both agricultural businesses and policy makers who find it difficult to implement and promote sustainable farming practices. As a result, the purpose of this specific literature review is to bridge this existing gap. The aim is to highlight the key elements emerging from the existing literature on how agroecological practices directly influence consumer awareness, preferences and purchase decisions. In this way, it will be easier to derive recommendations for the implementation of more specific and focused agroecological product marketing strategies that will enhance the implementation of sustainable agriculture. This is

necessary not only for the agricultural sector, but also for environmental sustainability and the responsibility of consumers to seek more ethical and sustainable agricultural products.

1.3. Objectives and scope

The main purpose of this systematic review of the literature is to thoroughly explore the effect of the adoption of agroecological practices on consumer behavior. More specifically, the review should evaluate the impact of this type of practice on consumers' level of knowledge and their perception of sustainable agriculture. It should also analyze the effect on consumer priorities and spending, such as consuming the awareness to spend more on the product because they believe it is highly sustainable. Furthermore, the review should aim at finding and explaining the pattern of adopting agroecological products according to the consumers' personal characteristics such as age, income level, and education. In conclusion, this review should make practical recommendations on how to better adapt the products to the consumer's requirements and recommendations to farmers, businesses, and policymakers.

The scope of this review will be limited knowledge from empirical research conducted in the past 10 years since various agroecological practices are prevalent in regions with well-documented data records such as North America, Europe, and some parts of Latin America. The compilation will comprise paper reviews directly related to the influence between agroecological practices and consumer behavior, which will include quantitative research using consumers' buying habits, qualitative research on consumer opinion on the products, and any mixed method giving detailed information about the context. These include sustainable agriculture (Rossi et al., 2023; Wojciechowska-Solis and Barska, 2021), organic farming (Shehrawat et al., 2015), integrated pest management (da Costa et al., 2016; He et al., 2023; Wendt and Weinrich, 2023), and use of renewable resources (E Silva et al., 2020; E. Silva et al., 2020; Stranieri et al., 2023). As for consumer behavior, all aspects of consumer decision-making in the contexts, frequency, and number of consumers participating in each case study and any measure of loyalty will be considered.

1.4. Research questions

The following research questions have emerged because of the need to explore the complex relationship between the implementation of agroecological practices and consumer behavior research. This will shed light on how the dynamics of agroecological product marketing are shaped. The questions have therefore been carefully designed to determine the level of awareness and needs of consumers. The aim is to provide a better and more detailed understanding of consumer perceptions and purchasing decisions related to agroecological practices. The detailed list of research questions that will inform this systematic literature review includes:

- A. *The Impact on Consumer Awareness:* To what extent can consumers perceive practices related to sustainable agriculture as a result of the application of agroecological practices? Understanding this question is very important as it influences the determination of the level of effectiveness of these practices in order to enhance consumer awareness of agricultural practices applied to protect the environment.
- B. *The Influence on the Perceptions of Product Quality:* How and why do consumers perceive agroecologically produced goods as more premium or inferior to corresponding conventional products available? This comparison will be made based on issues of quality, nutritional value and food safety. This understanding of consumer perception is important for determining and prioritizing the factors that influence consumers of agricultural products.

- C. *The Impact on Purchasing Decisions:* To what extent do agroecological practices influence consumers' economic decisions regarding environmentally responsible agricultural products? This question will reveal the importance of consumer preferences and how environmental awareness is influenced by consumers' purchasing power.
- D. *The Demographic Trends:* Do consumer demographics and socioeconomic characteristics influence consumer preferences for more sustainable products? This question will explore in depth the demographic background of consumers and factors such as gender, age, education level, and geographic region that are associated with more environmentally friendly consumer decisions.
- E. *Stakeholder Recommendations:* Can consumer perceptions predict and change the market dynamics of agroecological or sustainable products? The answers to this research question can generate specific tailored recommendations that will be used by stakeholders, including farmers, policy makers and agribusinesses, to implement as an effective strategy for buying and selling goods from the agricultural sector.

In the next section, the methodology of systematic literature review will be discussed including the research strategy, selection criteria, and analytical approach. Following this, the main results will be presented, focusing on the thematic clusters and trends in the literature. The discussion section will then be used to interpret the results, with a focus on their implications for consumers, producers, and policymakers. Finally, the paper will conclude with a summary of the main findings, as well as some suggestions for future research.

2. Methodology

The review used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, a structure for systematic reviews and meta-analyses' reporting (Grimshaw et al., 2021). The guidelines set recommendations for the process reporting to ensure the research's transparency and replicability. The PRISMA guidelines promote the comprehensive process of identifying potential articles, screening, evaluating, and including research liable to be selected for the present review.

2.1. Search strategy

Scopus and Web of Science were used as the main sources of academic literature databases accessed for this literature review. These platforms were used due to their extensive coverage of peer-reviewed scientific sources and for the quality control of journals, in order to enhance the quality of the publications under study. (Martín-martín et al., 2018; Franckut, 2021). Thus, in addition to being open-access databases, Scopus and Web of Science carried the advantage of ensuring that the review included only high-quality articles from accredited sources.

The process of searching for relevant literature was based on a developed search strategy that ensured the thorough capture of relevant published sources. The initial step of this approach involved identifying factors that characterized the review's objectives and questions. As such, the initial keywords such as "agroecology", "consumer behavior", "sustainable agriculture", and "consumer preferences" were formulated. Furthermore, as a means to broaden the base of empirical literature, more keywords and synonyms of these key concepts were identified. These synonyms included such terms as "sustainable farming", "organic agriculture", and "ecological farming", among others.

The various combinations of these keywords were crucial in order to create a search strategy, with the employment of Boolean operators that can further filter the research area. More specifically, keywords were combined using "AND" to ensure the most accurate search, such as "agroecology AND consumer preferences" or "sustainable agriculture AND buying behavior". Therefore, the search was based primarily on the

search engines of Scopus and Web of Science. These databases were chosen because of their cross-sectional nature in the academic field and their comprehensive coverage of peer-reviewed scientific articles. This provided more reliable references to search, which allowed the use of certain words in the constraints during the search, thus increasing the accuracy of the results. The first search using the presented combination of these keywords was run, considering that the review was concerned only with the most recent data, subsequently based on information found in the past fifteen years.

Filters were also set including only peer-reviewed articles and those written in English focusing on research impact on agriculture and environmental sciences, as defined above. To validate the applicability of the search strategy, the pilot test was conducted to assess the adequacy of the keyword combination and search strategy. Minor adjustments were made based on the pilot findings to optimize search terms and filters. Throughout this process, all search terms, databases, and results, were kept in order to ensure search transparency and clarity. This research strategy facilitated the systematic assessment of the selected topic, thus ensuring the validity of the literature presented.

2.2. Selection criteria

At the beginning of this systematic literature review, basic selection criteria were defined to ensure that the selected literature was relevant and suitable for further analysis. Practices and case-study contexts were identified inductively through the systematic screening process and were included based on their relevance to consumer behavior rather than prior technological categorization. This resulted in maintaining a high level of review for the study of consumer behavior and its relationship with applied agroecological practices. In order to present trends and changes in consumer habits in the field of agroecological practices, the review was limited to academic publications of the last decade. As previously stated, only peer-reviewed articles were included to confirm the validity and reliability of the research. The studies finally selected had to specifically address the issue of the link between agroecological practices and consumer and trade behavior. Finally, all studies considered had to be published in English to allow for a comprehensive analysis and explanation of the results contained therein.

Books, conference abstracts, opinion articles and non-peer-reviewed articles were removed from the databases to emphasize the importance of scientific publications and to ensure uniformity in the articles reviewed so that the necessary comparisons could be made. Studies that reported only on traditional practices and studies that did not compare conventional practices with agroecological practices were not considered in the analysis.

This selection was necessary to ensure that the dynamics of consumer choices regarding environmental concerns when implementing agroecological methods were examined. Finally, papers that were categorized as preliminary reports or those that did not have full texts due to a lack of data that would not lead to a proper examination were excluded. Insufficient information could hinder the completeness and validity of the review findings.

The actual selection uses a two-step process, which was carried out systematically: a) an initial screening of titles and abstracts was performed to determine relevance according to the criteria set a priori and if an article met this requirement, and b) a full-text review was performed to further verify whether the paper met the predefined criteria for inclusion. Such a twofold screening ensured the most relevant and high-quality articles for the review. In addition, a quality assessment was conducted for each of the articles included. Thus, the review provided a reliable synthesis of current knowledge on the topic of how agroecological practices influence consumer behavior.

2.3. Quality assessment

Choosing relevant studies for the present review was carried out in a

strict and organized way so that only the high-quality and most relevant research would be included. First of all, researchers conducted a vast search in selected databases, such as Scopus and Web of Science, using pre-defined keywords. The results of such a search were several articles that had to be screened first based on their title and abstract. This initial step was necessary to specify some studies that were not relevant to the research and therefore had to be excluded since they were not focused on agroecological practices or consumer behavior. Once this was done, chosen studies were downloaded and assessed for the extent that they met the inclusion criteria expressed earlier. The most important criteria were publication date, peer-review status, focus on empirical research of the relationship between agroecology and consumer behavior, and the presence of empirical data. All studies that did not meet the criteria were excluded.

The quality of each included study has been assessed as well through critical assessment, which is validated quality valuation tool suitable for qualitative, quantitative, mixed methods research. The objective of quality evaluation is to uncover any biases and to determine the strength of evidence derived from the study thus contributing factors to the validity of used evidence for this integrated review. The selection of studies consisted of an iterative system in which based on the results of the processes researchers search and review the publications on an ongoing basis. The changes were made as needed based on the trend observed and types of studies. Having such design ensures the review is adjusted to the new data if it becomes available on the topics related to consumer behavior. The application of this methodological framework resulted in the selection and synthesis of studies presented in the following Results section.

3. Results

3.1. Cluster analysis of literature review results

Upon thoroughly searching of the most relevant terms regarding consumer behavior and agroecological practices, four distinct clusters emerged. Created with Scopus database and VOSviewer software tool (version 1.6.20) graphical animation feature (VOSviewer, 2022), these clusters represent key research focusing on consumer behavior literature as well as providing valuable insight into consumption trends and patterns within agroecological field (Fig. 2). It should be noted that VOSviewer does not regard similar terms as the same unless they are merged through a thesaurus file. As can be seen in Fig. 2, terms like “consumer behavior,” “consumer behaviour” and “consumption behavior” appear in separate cluster. These differences are due only to variations in spelling and wording across the studies and do not reflect a conceptual difference. For these purposes, they are interpreted as referring to the same thing, the consumer decision-making process in general in relation to the sustainable and agroecological food products.

More precisely, the four clusters represent:

A. Consumer Behavior and Decision-Making Process

The blue cluster includes terms such as “sustainability,” “consumer behavior,” “willingness to pay,” “consumer attitudes,” and “dietary preferences.” It appears that factors such as individual choices and psychological factors that influence purchasing habits regarding organic and sustainable foods appear in this group. This cluster shows the importance of environmental perceptions and awareness of environmental issues in consumer decision-making (Mehrabian et al., 2022). Considering that the words “willingness to pay” and “food preferences” are present, there is an economic aspect to the topic. For example, consumer attitudes to sustainability based on value judgments influence consumer behavior (Mehrabian et al., 2022; Qalati et al., 2024; Sánchez-Bravo et al., 2021). Research in this cluster is likely to highlight income (Heerman and Sheldon, 2022), educational level (Hume and Barry, 2015), and social pressures (Hlophe and Ellis, 2024), among other

factors, as key determinants of overall consumer choice process. In conclusion, this cluster relates to the psychological and socio-economic factors that influence consumers and underlines the difficulty of decision-making when an individual takes multiple factors for consideration, including price, quality, loyalty to the brand, and more recently, sustainability factors (Schäufele and Janssen, 2021; Vermeir et al., 2020).

B. Sustainability and Environmental Concerns

The second cluster (red) deals with broader environmental and sustainability issues. It includes concepts such as “environmental impact”, “climate change” and “sustainable development”. This cluster includes a focus area on the relationship between consumer behavior and environmental dimensions and focuses more on specific areas of the environment in relation to the first cluster. It focuses on linking consumers to demands for sustainability in the production process or outcomes whereby the latter connects “climate change” as a rapidly growing consumer research area (Predieri et al., 2023). This cluster is relevant to the environmental scanning exercise at the global level characterized by challenges such as climate change and sustainable practices. This is an increasingly emerging body of literature that narrows down the impact of responsible citizens, including the use of green consumer products and reduced meat intake on other integral environmental factors (Peattie, 2010; Tobler et al., 2011; Vijayasree et al., 2022; Young et al., 2010).

C. Health and Environmental Responsibility in Consumer Choices

This cluster (green colored) includes keywords such as “consumer preferences,” “carbon footprint,” “food packaging,” “health,” and “environmental protection.” It focuses on the direct impact of consumer choices on personal health and environmental sustainability. The third cluster connects individual purchasing to a rising level of health and environmental awareness, primarily in terms of food packaging and carbon footprint reduction (Brennan et al., 2020; Cammarelle et al., 2021; Muratore and Zarbà, 2011). The presence of health next to environmental protection implies that along with looking for agricultural products that benefit their health, consumers also seek those that are regarded beneficial or less damaging for the environment (Joshi and Rahman, 2015). It points to the emergence of a more responsible in terms of ecological implications consumer attitudes, factoring the carbon footprint and packaging conditions into the purchasing procedure (Geng et al., 2023; X. K. Yang et al., 2021). This cluster finds adequacy in the context of a more responsible consumer demand towards ecological attitude, playing an actual role in combating climate destabilization through consumers’ choices. This extending motivation from consumers leads to a notable increased demand for organic production, eco-packaging, and low-carbon products. Through the high need of individual health concerns and the need for the engagement of environmentally responsible behavior, this cluster reveals the intricacies of consumer motivations and attitudes (Lavuri, 2022). It highlights the need for comprehensive approaches towards consumer needs, leaning towards sustainability and health in the global context of ecological implications and health awareness (Jia et al., 2023).

D. Ethical Consumption

This cluster (yellow colored) includes keywords such as “animal welfare,” “food security,” “food waste,” and “nutrition.” This cluster emphasizes the ethical dimension of consumption and the sustainability of food systems. It illustrates how consumer choices affect broader social issues, including the ethical treatment of animals, the reduction of food waste, and the nutritional quality of food. The focus of the fourth cluster is a consumer’s growing awareness of the issue of food production methods and ethical distribution. Components like “animal welfare”

indicate a high level of interest in how food producers treat animals, which subsequently drives in a more responsible consumption behavior (Serpell, 2004; Taylor and Signal, 2009; Tsakiridou et al., 2010). Additionally, the increased interest in organic and cruelty-free certifications also drives the issue of ethical consumerism. The keywords “food security” and “food waste” are also essential components, as they concern about the availability of resources, the evenness of their distribution and the efficiency of other food systems in reducing waste (Aktas et al., 2018; Brennan et al., 2020; Liguori et al., 2022). Such issues are internationally researched to help humanity develop more sustainable food production methods as it impacts all socio-economic categories in terms of food availability, while the production and consumption processes can be optimized for waste reduction. Finally, “nutrition” refers to individual consumption and consumers’ concerns about food health (Meybeck and Gitz, 2017; Razzaq et al., 2021). This review assumes that consumers are also more aware of the nutritional process of foods as they consume them ethically and recognize that more ethical foods are healthier. Research in this cluster deals with how awareness and concern over such issues influence conscious consumer behavior development, such as product choice in terms of ethically sourced and fair-trade-produced or sold products or directly correlated to food security (Sama et al., 2018; Zander and Hamm, 2010). It may also research overarching policies that introduce laws on labeling that help consumers be transparent about animal treatment or the food’s nutritional content.

3.2. Study selection results

For the present systematic literature review, the search and selection process corresponded to the PRISMA guidelines. Generally, the review aimed at identifying scientific articles discussing consumer behavior in the framework of sustainable agriculture and agroecological practices, specifically in relation to food products. The starting point of the database search was the Scopus and Web of Science platforms. The initial keywords that have been applied are: “consumer behavior” and/or “consumer behaviour”, “sustainable agriculture”, “agroecological practices”, or “agroecology”. The search returned a significant number of articles – 18,134. With the aim of narrowing the search and attempting to focus more on the research’s interests, the additional keyword “food product” was added. The indicated number of articles narrowed down to 2133.

The range of publication years chosen for the articles found is quite wide – from 1989 to 2024. Since it is critically important to reflect the most recent findings in the field, the year range was limited to 2013-2024. While some research existed prior to 2013, the review focused solely on studies from 2013 onwards to remain current with agroecological messages and contemporary research on consumer behavior. Over the past ten years the debate on sustainability, the use of technology in agriculture and consumer awareness of food’s environmental and ethical sustainability is part of a process of change. As a result, 1588 articles stayed in the repository. Further filters were applied to include only academic journal papers, excluding reviewed papers reviews, book chapters, and conference papers. After these steps, the number of articles was reduced to 1360. An additional filter was placed in to exclude papers which are in press. As a result, 741 articles have remained. Another filter was the language of publication – only articles in English were included. That filter narrowed the search down to 717 articles. In order to better align with the research disciplines, the subject areas of Agricultural, Environmental and Biological and Food sciences were utilized as parameters. To identify the articles that are most related to the above-mentioned topics developed within the concept of agroecology and food science, the additional key terms “consumer preferences” and “environment” were also entered. Therefore, the final narrow-down of the retrieved search sources left 122 articles that seem most relevant to the objectives of a systematical literature review.

3.2.1. Search string formulation

The search strategy was operationalised using structured Boolean search strings applied to the Title, Abstract, and Keywords fields in Scopus and Web of Science. The core search string used was:

(TITLE-ABS-KEY (consumer AND behavior) AND ALL (agroecological AND practices) OR ALL (agroecology) AND ALL (sustainability) AND ALL (food AND products) AND ALL (environment)) AND PUBYEAR >2012 AND PUBYEAR <2025 AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English"))).

The above Boolean string was used as the core structured search. The final 122 articles were obtained after applying filters and screening procedures according to PRISMA guidelines. Filters were applied for publication years (2013–2024), peer-reviewed journal articles, and English language.

Such a rigorous selection process ensured the high relevance of the chosen articles to the research questions as well as guaranteed the highest quality and the most recent publications that can provide accurate and relevant data on consumer behavior, sustainable agriculture, agroecology, and food science. All the author's steps and the current selection process are guaranteed to have been performed based on the PRISMA regulations, which guarantee replicability for future studies (Fig. 1).

3.3. Study characteristics

The research across the Scopus database after refining the search terms, using the term "food product" and the primary keywords, found a total of 1588 documents. Fig. 3 shows the publication trends recorded dating back to 1989 up to 2024. Since 1989, the publications are just around five, but there is a sharp increase after 2010. The broader dataset was utilized to showcase the long-term publication trend of the field. The increase in publications is more pronounced from 2010 with an all-time high of nearly 250 publications being recorded in 2023.2024 has fewer publications, but this can be explained by incomplete data or a certain trend shift that may not be sustained. However, in keeping with

the decision to focus the methodology on contemporary developments, the dataset was limited to 2013–2024. As this was done with a temporal filter, it was observed that the number of publications reduced considerably as reflected Fig. 4. The discrepancy between Figs. 3 and 4 therefore reflects the deliberate narrowing of the time frame rather than inconsistencies in the search strategy. Starting from around 10 documents in 2013, the pattern persists until 2021 peaking at 25 articles. Thus, this trend shows a growing response to the concerns surrounding consumer preference and the environment, concerning agroecology and sustainability in consumer behavior up to the latest years.

Fig. 5 illustrates the proportion of papers published in various journals that are relevant to the subject of agroecology and consumer behavior. The distribution is not consistent, with a small number of journals accounting for a significant portion of the publications; the Sustainability journal, which comprises 32% of the publications, stands out. This is not surprising, as the journal focuses on the research at the intersection of environmental, social, and economic sustainability, closely aligning with the principles of agroecology, discussed in the paper. Journal of Cleaner Production follows, with 10% of the publications; the journal focuses on sustainable production and consumption, including studies of how agroecological practices can lead to the implementation of more sustainable agricultural processes. Food Quality and Preference Journal and Frontiers in Sustainable Food Systems account for 9% of the publications each; this clearly shows the orientation of the journals on the sustainable agricultural practices and economic aspects of agriculture that influence consumer behavior and food choices. The rest of the journals are spread by different percentages, which range from 1% to 7%: focusing more on the policy dimensions of food production and consumption, including consumer responses to different agricultural policies and innovations. Additionally, Agronomy and Agribusiness journals, which analyze nutrition research and business models that integrate consumer preferences and sustainability, are included among these publications.

Table 1 presents the most cited scientific publications related to consumer behavior and sustainability for the decade 2013-2024. This table therefore provides an overview that better highlights the sectors

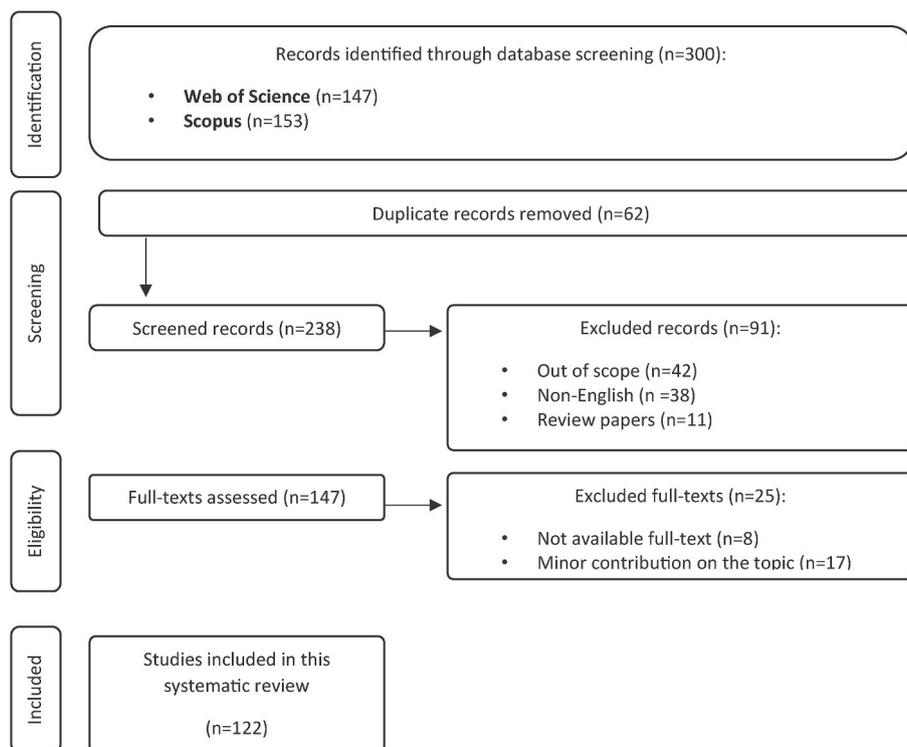


Fig. 1. PRISMA methodology of the literature selection process (own elaboration based on PRISMA guidelines).

Documents by year

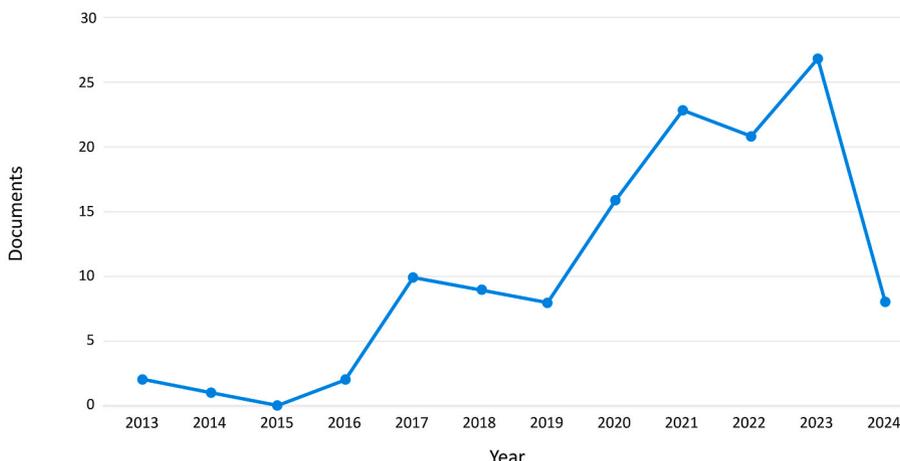


Fig. 4. Publications per year (2013-2024) (Source: own elaboration).

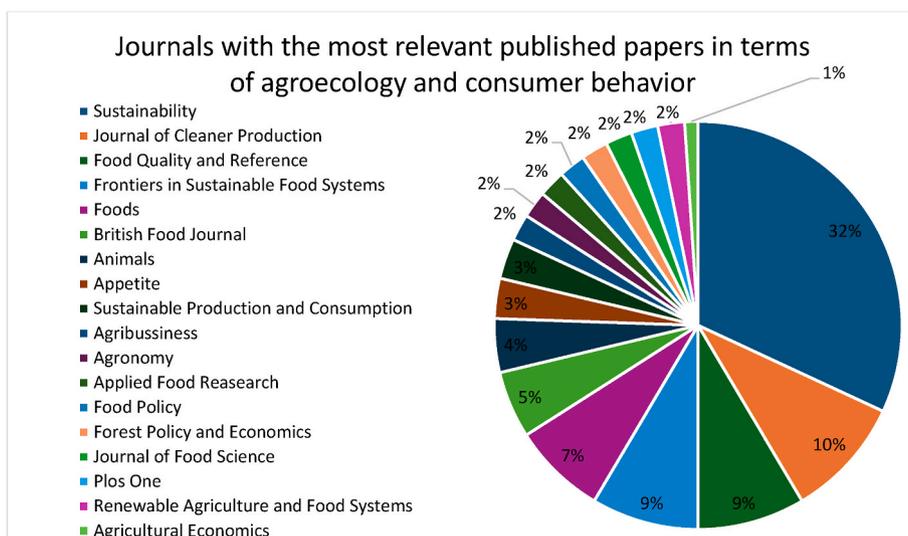


Fig. 5. Journals with the most relevant published papers in the field (Source: own elaboration).

intriguing because it addresses one of the most contentious issues in sustainable consumption. This study, just as the research conducted by (Mertens et al., 2019) regarding diets and environmental impacts in different European countries, is crucial to empower policymakers and consumers to make well-informed decisions regarding the consequences of their food-related choices.

3.4. Synthesis of results

Table 2 presents 122 publications related to sustainable production and consumer behavior as they have evolved since 2013. This table demonstrates that there is a great variety in the topics covered under the concept of sustainability and that individual categories of interest thus arise. The variety of sustainable issues that have been studied over the years is great and underlines the different dimensions of consumer behavior in relation to environmental issues. This variety demonstrates a diverse and comprehensive standpoint at the topics as well as the broad integration between different academic fields. The growing interest in the environmental issues of food production and consumption has been noted as a trend in recent literature. At the same time, a growing number of articles focus on novel food technologies (Henchion et al., 2019; Verbeke et al., 2015; Zamaratskaia et al., 2021), cultured

meat (Choudhary et al., 2024; Kamalapuram et al., 2021; Moritz et al., 2022), and food products made from insects (Halonen et al., 2022; Mancuso et al., 2016; Palmieri et al., 2023; Verbeke et al., 2015), again demonstrating the future-focused and prospective nature of sustainable consumer research. Finally, the most recent publications particularly those from 2024 show that it is important to continue researching how sustainability affects the food business since it keeps emphasizing policy (Zinngrebe et al., 2024), technology (Casson et al., 2024), and health (Mancuso et al., 2024).

Finally, the subjects of the academic papers that were included present an interest regarding a geographic point of view, including case studies across many continents and cultural backgrounds (Kapse et al., 2023; Mancuso et al., 2016; Nga and Tam, 2024; Xiong et al., 2020). This is the reason why the geographical parameter is further examined as a variable in the next section of this literature review. A comprehensive understanding of consumer behavior should be grounded in a global perspective, as sustainability and the need for it are determined by cultural, economic, and environmental background. Similarly, cross-cultural studies concerning food sustainability demonstrate that the definition of the latter notion can differ greatly based on location.

Table 3 has incorporated 122 publications on the topic of agroecological practices, and an attempt is made to examine factors that

Table 1

Most cited articles in the field of consumer behavior and sustainability since 2013.

Rank	Authors	Title	Year	Source	N of citations
1	D'Amico, Di Vita and Monaco	Exploring environmental consciousness and consumer preferences for organic wines without sulfites	2016	<i>Journal of Cleaner Production</i>	144
2	Dahlin, Herbes and Nelles	Biogas digestate marketing: Qualitative insights into the supply side	2015	<i>Resources Conservation And Recycling</i>	121
3	Schmitt, Galli, Menozzi, Maye, Touzard, Marescotti, Six and Brunori	Comparing the sustainability of local and global food products in Europe	2017	<i>Journal of Cleaner Production</i>	105
4	Migliore, Scifani and Cembalo	Opening the black box of food quality in the short supply chain: Effects of conventions of quality on consumer choice	2015	<i>Food Quality and Preference</i>	96
5	Stranieri, Ricci and Banterle	Convenience food with environmentally-sustainable attributes: A consumer perspective	2017	<i>Appetite</i>	73
6	Mancuso, Baldi and Gasco	An empirical study on consumer acceptance of farmed fish fed on insect meals: the Italian case	2016	<i>Aquaculture International</i>	63
7	Behre, Campbell, Hall, Khachatryan, Dennis and Yue	Consumer Preferences for Local and Sustainable Plant Production Characteristics	2013	<i>Hortscience</i>	60
8	Jürkenbeck, Heumann and Spiller	Sustainability Matters: Consumer Acceptance of Different Vertical Farming Systems	2019	<i>Sustainability</i>	55
9	Weinrich and Elshiewy	Preference and willingness to pay for meat substitutes based on micro-algae	2019	<i>Appetite</i>	54
10	Mertens, Kuijsten, Kaptjin, Dofkova, Mistura, D'Addezio, Turrini, Dubuisson, Harvard, Trolle, Geleijnse and va Veer	Dietary choices and environmental impact in four European countries	2019	<i>Journal of Cleaner Production</i>	52
11	Giampietri, Koemle, Yu and Finco	Consumers' Sense of Farmers' Markets: Tasting	2016	<i>Sustainability</i>	49

Table 1 (continued)

Rank	Authors	Title	Year	Source	N of citations
12	Lazzarini, Visschers and Siegrist	Sustainability or Just Purchasing Food? Our own country is best: Factors influencing consumers' sustainability perceptions of plant-based foods	2017	<i>Food Quality and Preference</i>	45
13	Coderoni and Perito	Approaches for reducing wastes in the agricultural sector. An analysis of Millennials' willingness to buy food with upcycled ingredients	2021	<i>Waste Management</i>	44
14	De Boni, Pasqualone, Roma and Acciani	Traditions, health and environment as bread purchase drivers: A choice experiment on high-quality artisanal Italian bread	2019	<i>Journal of Cleaner Production</i>	44
15	Ahmad, Qureshi, Akbar, Siddiqui, Gani, Mushtaq, Hassan and Dhull	Plant-based meat alternatives: Compositional analysis, current development and challenges	2022	<i>Applied Food Research</i>	42

influence consumers and their relevance. Examples of such factors are price, environmental concerns and social impact on consumers. The following information was recorded from the articles: authors, year of publication, country of study, food product, size of the population studied, research methodology and type of sustainable practices. The plethora of countries where these case studies have been conducted reflect a global interest in consumer behavior towards sustainable food products. This indicates a variety of individual and multiple-country studies that have extended across multiple continents. Prominent representation of nations including Italy (Cafarelli et al., 2015; D'Amico et al., 2016; Migliore et al., 2015; Nicolosi et al., 2023; Proi et al., 2023; Rocchi et al., 2023; Rossi et al., 2023; Ruggeri et al., 2020; Scozzafava et al., 2021; Spada et al., 2024; Stranieri et al., 2023; Torquati et al., 2019), China (Bo and Yang, 2022; Liang et al., 2022; Ma et al., 2022; Wang, 2023; Zhang et al., 2023; Q. J. Zheng et al., 2018), Canada (S. Anders et al., 2023a; S. Anders et al., 2023b; Doyon et al., 2023; Traoré et al., 2023; Yang et al., 2020), and the United States (J. Chen et al., 2019; Garg et al., 2023; Lim et al., 2018; Y. Shen et al., 2021; E. Silva et al., 2020; Taillie et al., 2021) suggests that considerable research activity is concentrated in these particular regions. Additionally, there are studies from other European countries like Spain (A. Eldesouky et al., 2020a; A. Eldesouky et al., 2020b; Grymshi et al., 2022; Mesías et al., 2023; Resano and Sanjuán, 2018), Germany (Altmann et al., 2022; Dahlin et al., 2016; Jürkenbeck, Heumann, et al., 2019; Jürkenbeck, Spiller, et al., 2019), the United Kingdom (Areal and Asioli, 2024; Hussein et al., 2015; Lovegrove et al., 2023), and less commonly represented nations such as Korea (Hwang et al., 2021), Vietnam (Ngo et al., 2023), and Japan (Wakamatsu et al., 2017). Furthermore, the fact that many studies include comparative analyses between different countries shows that the interest in sustainable practices is a global phenomenon for consumers. However, comparative analyses show the different consumer needs that are shaped by different demographic and

sociological characteristics. These studies that have been carried out in different regions are of high importance for understanding consumer behavior on a global level. This geographical diversity of scientific publications makes it easier to compare consumer behaviors in different cultural and economic contexts. This happens as consumers from various types of markets and environments are examined, providing a broad perspective on how individuals around the world perceive and interact with sustainable food consumption.

The "Product" column includes a wide variety of foods analyzed in the studies, reflecting the different applications and impacts that these products have in the context of sustainability based on the consumer perspective. The variety of papers includes everyday products such as rice (Trang et al., 2023; X. K. Yang et al., 2021), vegetables (Frankowska et al., 2019; van Herpen et al., 2016; S. H. Yang et al., 2021), and eggs (Areal and Asioli, 2024; Doyon et al., 2023), which are foundational to global diets and critical to sustainability efforts due to their widespread consumption and significant environmental impact during production. More specialized products like organic wine (D'Amico et al., 2016; Scozzafava et al., 2021) and cultured meat (Choudhary et al., 2024; Kamalapuram et al., 2021) are also included, and this can represent markets with unique sustainability challenges and opportunities.

These analyses investigate a variety of different agricultural products and how sustainable methods can be applied to various segments of the food market. For instance, how rice and vegetables are produced and consumed can be significant when examining large-scale agriculture and how it contributes to the environment (van Herpen et al., 2016; X. K. Yang et al., 2021). Meanwhile, products such as organic wine and cultured meat can inform us on how accepting consumers can be of adopting sustainable measures in specific market segments. The markets are potentially using technologies (such as IoT applications and the use of AI), and precision agriculture tools (e.g., drones) during the production process that have lower levels of environmental contribution (D'Amico et al., 2016; Kamalapuram et al., 2021).

This approach also allows researchers to examine how consumers behave when it comes to all sorts of sustainability topics, such as organic production and eco-labels (Heerman and Sheldon, 2022; van Herpen et al., 2016) and ethical production and reducing carbon footprints (Allenden et al., 2022; Berki-Kiss and Menrad, 2022). Customers perceive different kinds of products and have different concerns about whether or not these products are sustainable. To determine the best sustainable practices, you need to be aware of these sorts of things. For example, fresh produce such as fruits and vegetables might emphasize reducing waste from food and streamlining the supply chain (van

Herpen et al., 2016; S. H. Yang et al., 2021). Other, pricier products like wine might emphasize sustainable production and biodiversity (D'Amico et al., 2016; Pagliarini et al., 2022) (Fig. 6).

Studies presented in the table employed both quantitative and qualitative approaches. This indicates how multifaceted and diverse consumer behavior is when it comes to supporting sustainable and agroecological food production (Fig. 7). Quantitative methods are general and employ a variety of statistical and analytical methods to examine and know how individuals behave and what their preferences are. Exploratory Factor Analysis (EFA) is one such method. The significant relationships between latent constructs and observed measures are identified using it (Bimbo et al., 2022; da Costa et al., 2016; Mohammadi et al., 2023; Nassivera et al., 2020; Nicolosi et al., 2023; Olum et al., 2021; Voinea et al., 2016).

Willingness to Pay (WTP) assessments are commonly used to gauge how much consumers are willing to spend on sustainable products, providing insights into their valuation of sustainability attributes (Areal and Asioli, 2024; Baldi et al., 2021; Bentivoglio et al., 2020; Bo and Yang, 2022; K.-J. Chen et al., 2019; S. Coderoni and Perito, 2021; D'Amico et al., 2016; de Haas et al., 2021; Giampietri et al., 2016; Iweala and Sun, 2022; Lim et al., 2018; Ma et al., 2022; Mazzocchi and Sali, 2022; Ngo et al., 2023; Rossi et al., 2023; Ruggeri et al., 2020; Scozzafava et al., 2021; E Silva et al., 2020; Smith et al., 2021; B. Torquati et al., 2018a; B. Torquati et al., 2018b; Vecchio et al., 2022; Zhang et al., 2023). Cluster analysis helps in segmenting consumer groups based on shared characteristics, which is essential for targeted marketing and educational campaigns (Behe et al., 2013; Carneiro et al., 2022; Choudhary et al., 2024; A. Eldesouky et al., 2020a; A. Eldesouky et al., 2020b; Mancuso et al., 2016; Merlino et al., 2022; Mesías et al., 2023). Conjoint analysis, another quantitative method used, helps determine which product attributes (such as price, organic labeling, or carbon footprint) consumers value most (Dahlin et al., 2019; Donadini et al., 2020; Weinrich and Elshiewy, 2019; Zanchini et al., 2022).

Qualitative methods, such as focus groups, are also significant and offer deeper insights into the consumer awareness (Hamba et al., 2024; Lauterbach and Bantle, 2022; Madu et al., 2024; Torquati et al., 2019). These methods allow researchers to explore nuanced perspectives and motivations behind consumer choices, providing a rich narrative to the quantitative data. Through discussions and interactions within focus groups, researchers can uncover detailed opinions and attitudes that might not emerge through structured survey methods. Some studies employ a mixed-methods approach, integrating both qualitative and quantitative data to harness the strengths of both (Grymshi et al., 2022;

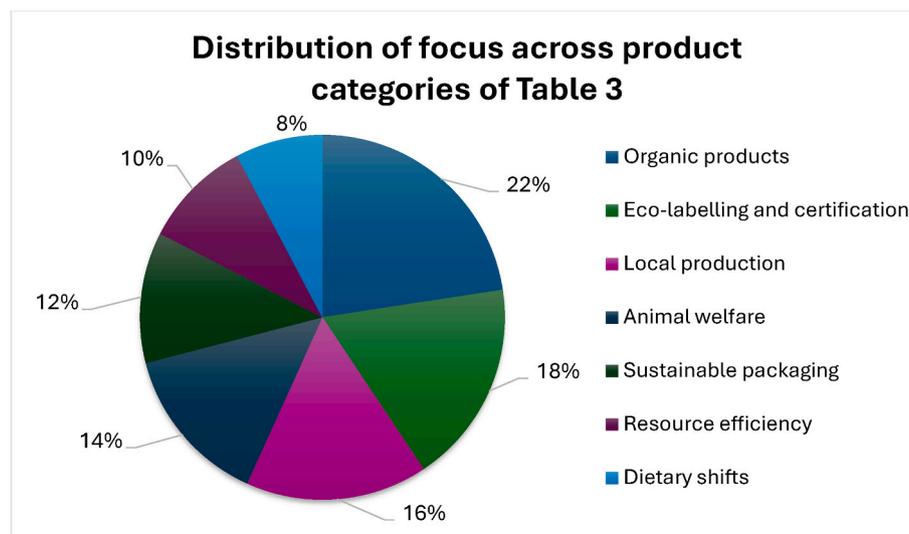


Fig. 6. Distribution of focus across product categories (Source: own elaboration).

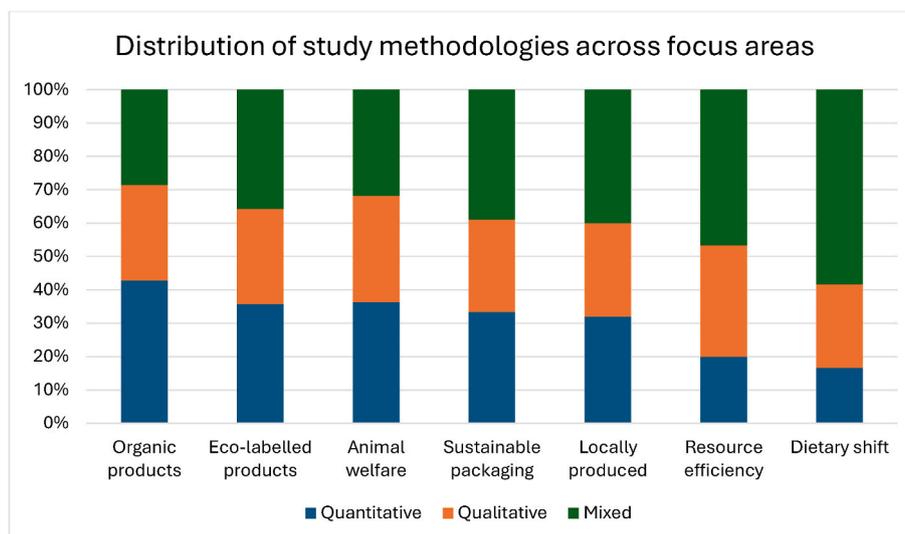


Fig. 7. Distribution of study methodologies across focus areas (based on Table 3) (Source: own elaboration).

Lazzarini et al., 2017; B. Torquati et al., 2018a; B. Torquati et al., 2018b). This integrative approach provides with a complete understanding about how people behave like assessment by bringing together qualitative depth and quantitative approaches.

The research indicates numerous different sustainability initiatives that are working to improve food production and consumption to benefit the environment and consumers. They can be categorized under a number of general areas each dealing with a different aspect of improving the sustainability of the food industry:

- **Organic production:** The majority of studies focus on organic production, which considers practices not centered on synthetic pesticides (da Costa et al., 2016; He et al., 2023; Wendt and Weinrich, 2023), fertilizers (Dahlin et al., 2016; He et al., 2023), GMOs, and intensive animal production procedures (Zhang et al., 2023). Researchers study how much more people are willing to pay for organic products and whether they think organic products are healthier for them and the planet.
- **Eco-labeling and Certification:** Applying marks to products stating that they meet some environmental or ethical standards, such as a lower carbon footprint (Roa-Goyes and Pickering, 2024; Xiong et al., 2020; X. K. Yang et al., 2021), lower use of chemicals (Testa et al., 2020), or meeting fair-trade laws. In these fields, researchers investigate the impact of eco-labels on consumers' confidence and purchasing decisions as well as whether consumers are knowledgeable about and accept different labels (Galati et al., 2022; Heerman and Sheldon, 2022; Higgins et al., 2020).
- **Ethical Production and Animal Welfare:** Animal welfare research discusses how people have a similar viewpoint in terms of products supporting humane treatment of animals, like free-range eggs or ethically produced meat (Doyon et al., 2023).
- **Sustainable packaging:** Another important thing to accomplish is to use biodegradable or minimalist packaging to lessen the environmental impact of the packaging (Cammarelle et al., 2021; K.-J. Chen et al., 2019). This research investigates how consumers react to more sustainable packaging and whether they are willing or not to buy products that are engineered to utilize eco-packaging.
- **Local and Traditional Production:** Encouraging people to produce food locally can help lower carbon emissions from transportation and enable local economies to flourish (Annunziata and Mariani, 2018; Behe et al., 2013; Khemira et al., 2023; Schmitt et al., 2017). Researchers will look at how much customers like shopping for locally made products compared to foreign-made products and how

they feel that locally made products are fresher and better quality (Testa et al., 2020; Verner et al., 2020).

- **Resource Efficiency:** These are agricultural practices that use less water (Ali et al., 2021; S. Coderoni and Perito, 2021; Taillie et al., 2021) energy, and waste. Studies might look at how willing consumers are to embrace technologies (like the use of IoT, AI, drones) that enhance efficiency and greenness in agriculture, like methods of saving water or minimizing waste.
- **Dietary Modifications:** Another way to be more environmentally friendly is by convincing people to have more plant-based food or less resource-demanding food sources like red meat. Studies in this context reveal that people are willing to make a shift towards plant-based or alternative proteins for health, environmental, or ethical reasons (Kopainsky et al., 2020; Mertens et al., 2019; Razzaq et al., 2021; Xiong et al., 2020).

In the “AE” (Agroecological Element) column of the table, most entries are marked with a dash (–), indicating that the term “agroecological practices” is seldom explicitly mentioned in the majority of the studies. This observation is intriguing as it suggests that while the principles of agroecology might be embedded within the broader context of sustainability and organic farming, they are not frequently labeled as such in consumer behavior research. Agroecology integrates ecological principles with agricultural practices, focusing on the interactions between plants, animals, humans, and the environment to create more sustainable food systems. The sparse explicit mention of agroecological practices in these studies may reflect a variance in terminology or a preference for more widely recognized terms such as “organic” or “sustainable.” This could be due to the complex nature of agroecological concepts which may not yet be widely understood among the general public or uniformly applied across academic research.

Furthermore, the preference for using broader sustainability terms suggests that researchers may choose to frame their studies within contexts that are more familiar to a broader audience. This approach could potentially broaden the appeal and applicability of the research findings but may also blur the specific contributions and unique perspectives that agroecological practices offer to discussions on sustainable agriculture. The limited use of the term “agroecological”- it is used only in 9 out of 122 articles-highlights a significant gap in the literature, highlighting the need for more focused research that clearly defines and considers these practices. Such research could enhance the academic and public understanding of agroecology's distinct role and benefits within sustainable food systems.

The “Factors” column in Table 3 reveals a rich grouping of components that studies have identified as influencing consumer behavior towards sustainable and agroecological food products. These factors are varied, reflecting the complex interaction of personal, economic, and social influences that shape consumer decisions. A deeper analysis of these factors shows how they collectively contribute to understanding consumer preferences and the broader dynamics of market demand for sustainable products.

Price is a recurrent factor across many studies, underscoring its critical role as a decisive element in consumer purchasing decisions. Studies often examine how much more, if at all, consumers are willing to pay for products that are labeled organic (Simeone et al., 2023; Van Doorn and Verhoef, 2011), eco-friendly (Foti et al., 2019; Proi et al., 2023), or sustainably produced (Bo and Yang, 2022; Young et al., 2010). Price sensitivity highlights the economic constraints faced by consumers and the premium often associated with sustainable products, which can be a barrier to widespread adoption.

Environmental Concern is another prominent factor, reflecting the growing awareness and sensitivity towards environmental issues among consumers (Choudhary et al., 2024; Haider et al., 2022; Mameno and Kubo, 2023; S. Stranieri et al., 2017; Thongplew et al., 2023; Traoré et al., 2023). This factor is closely examined to determine how beliefs and attitudes about environmental impact influence consumer choices, especially in terms of preference for products that promise lower environmental footprints, such as those with carbon-neutral certifications or those produced via eco-friendly practices (Iweala and Sun, 2022; Profeta et al., 2021; Tavárez and Alamo, 2021; Wojciechowska-Solis and Barska, 2021).

Gender and *Age* also emerge as significant factors, suggesting demographic variations in how different groups perceive and engage with sustainable food products (Dahlin et al., 2019; Mancuso et al., 2016; Mertens et al., 2019; S. Stranieri et al., 2017). Typically, studies might find that younger consumers or women are more inclined towards environmentally sustainable products, driven perhaps by different social values or higher levels of environmental awareness among these groups.

Education level is frequently analyzed, often finding a correlation between higher educational attainment and a greater likelihood of choosing sustainable products (April-Lalonde et al., 2020; Behe et al., 2013; Grymshi et al., 2022; Higgins et al., 2020; Lizcano-Prada et al., 2024; Mancuso et al., 2016; Mazzocchi and Sali, 2022; Mohammadi et al., 2023; Roa-Goyes and Pickering, 2024; Zhang et al., 2023). This linkage suggests that education could play a key role in enhancing consumer understanding and appreciation of the benefits of sustainable practices, thereby potentially increasing demand.

Health Concerns are also a critical factor, especially in relation to organic foods or products devoid of synthetic pesticides and fertilizers. Consumer perceptions that link sustainable food production practices with health benefits significantly drive interest and willingness to purchase these products (Allenden et al., 2022; Bimbo et al., 2022; S. Coderoni and Perito, 2021; Foti et al., 2019; Galati et al., 2022; Kopainsky et al., 2020; Lauterbach and Bantle, 2022; Merlino et al., 2022; Taillie et al., 2021; Testa et al., 2020; Thongplew et al., 2023; Voinea et al., 2016).

Marketing Strategies and *Label Information* are pivotal in shaping consumer perceptions and knowledge about sustainable products (S. Anders et al., 2023a; S. Anders et al., 2023b; De Boni et al., 2019; de Haas et al., 2021; Liang et al., 2022; Lovegrove et al., 2023; Ngo et al., 2023; Scozzafava et al., 2021; Wiedemann et al., 2023; X. K. Yang et al., 2021). Effective communication that educates consumers about the tangible benefits of sustainable practices can enhance consumer engagement and loyalty.

Cultural and Regional Differences reveal that consumer preferences can vary significantly based on cultural background and regional characteristics. This variability underscores the importance of localized marketing strategies and the adaptation of product offerings to meet regional tastes and expectations. The key patterns and themes identified

through the systematic review are further interpreted and contextualized in the Discussion section.

4. Discussion

4.1. Interpretation of findings

The systematic literature review of 122 articles tries to gain deeper knowledge about consumer behavior towards agroecological and sustainable products. The main finding served by the review is that price holds a significant role in consumer choice across countries. Sustainable products are normally more expensive, and that could be a hindrance to mass consumer acceptance even when consumer interest grows. Therefore, measures that lower production costs of sustainable food or can convey added value to these products are important.

The results of the search for this systematic review show that the literature on consumer behavior does not explicitly use the term “agroecological practices”, despite the fact that most studies have studied the relationship between consumer demand and sustainability. This very important gap that arises in the terminology that is often used is covered by related concepts such as “organic”, “sustainable” or “environmentally friendly” production, without however, in most cases, there being a clear conceptual distinction between the terms. It should be clarified again at this point that the terms agroecology and sustainability, although closely related, should not be identified as synonyms. Agroecology extends beyond individual sustainability features to include ecological integration, socioeconomic justice, biodiversity enhancement, and local knowledge systems.

When consumer research subsumes agroecology into the generalized sustainability terminology, it risks overlooking the unique structural and political dimensions embedded in agroecological systems. From a research point of view, this ambiguity undermines the theoretical rigor of research and could limit the potential for developing more advanced models of the relationship between production systems and consumer perceptions. From a practical point of view, this ambiguity in terminology could limit the prominence of agroecology in market communications and thereby limit consumer awareness and informed purchasing decisions. It is suggested that future research more clearly conceptualizes agroecology as a distinct framework rather than as synonymous with sustainability.

The report highlights the important role that an awareness of the environment has in determining consumer behavior. Those consumers who are more environmentally concerned tend to buy greener products. Hence, educational campaigns that raise levels of understanding about how production and consumption contribute to damage to the environment, and clear and transparent labeling practices, are critical. These measures need to address disparity between consumer intent and purchase behavior. Education level, age, and gender are important measures of consumer behavior when it comes to buying greener products. Targeted advertising and outreach that single out specific demographic segments such as younger adults and women who are more responsive to messages about sustainability could significantly increase engagement. Leverage through social media and social media influencers and through digital media could help increase reach and power among these groups.

The connection between sustainability products and health benefits perceived by consumers is an influential driver for shopping. Advertising and promotion based upon organic, pesticide-free, or locally produced and suggesting health benefits can capitalize upon consumer health consciousness and guide buying behavior. This approach focuses on both health and environmental benefits and is very appealing to consumers. Building trust with customers and helping them make smart choices depends on good marketing and clear labeling. Labels that accurately show how eco-friendly a product is help people choose products that are in line with their values. Also, certifications and standards that are easy to see and understand can help consumers feel better about the truth of claims that something is sustainable.

4.2. Implications

Companies must be thinking about creative ways to price sustainable products to make them affordable. This might be achieved by reducing costs through technology, supply chain efficiencies, or through tiered pricing to appeal to various consumer segments. The implementation of agroecological practices through the use of smart technologies can lead to an increase of consumer satisfaction. However, the use and application of digital and smart technologies in the context of agroecology and sustainable food systems have been hindered by some challenges. First, the costs associated with investing in digital and smart technologies may be a major impediment. Moreover, the lack of training and the varying levels of digital literacy among farmers and producers, especially small-scale producers, may also be a limitation. Lastly, the varying levels of infrastructure and knowledge may also hinder the ability of farmers and producers to effectively use the technology and create clear and transparent sustainability signals for consumers. The adoption of digital technology in sustainable agriculture may also bring about unforeseen consequences such as increased inequality, labor displacement, and data privacy and ownership issues. These technological challenges are relevant to the present review because the effectiveness of agroecological systems in influencing consumer behavior depends partly on the credibility, visibility, and communication of sustainability practices, which digital technologies can either enhance or hinder. These ethical issues need to be considered to ensure that the transition to agroecology is socially inclusive and acceptable to the consumer.

Companies should personalize demographic insights to tailor marketing campaigns. Recognizing millennials and health-conscious individuals' preferences and motivations would be beneficial in developing focused advertising and promotion initiatives. There is scope for product innovation based on consumer requirements for health and sustainability. Developing new products that combine these elements, such as plant-based or locally sourced ingredients, could meet growing consumer expectations and expand market share.

Governments might consider subsidies or tax incentives for producers and retailers of sustainable products to lower prices and encourage broader consumer adoption. Equally, there could be incentives for research and development of sustainable agriculture. There should be investment in public educational campaigns aimed at raising awareness of consumer benefits from sustainable consumption. This can address the disparity between purchase intention and actual behavior. The establishment and implementation of clear, tough standards for labeling and advertising sustainable products can ensure transparency and consumer confidence. This entails legislation that discourages greenwashing and allows for truthful communication of product origins and production processes.

By incorporating sustainability subjects into their curricula, academic establishments can highlight the ecological, economic, and health implications associated with the production and consumption of food. This would prepare future generations to make informed choices as consumers. Community-based programs can be effective in demonstrating the practical benefits of sustainable living. Workshops, demonstrations, and local markets can directly interact with consumers, exposing them to a direct knowledge and insight into sustainable methods. Encouraging and embracing sustainable products through consumer choice holds tremendous potential for lowering the traditional agriculture-related environmental footprint, which includes pesticide application, wastage of water, and carbon emissions. Sustainable food systems can make society better by supporting fair trade and other moral actions that make things better for farm and food industry workers. This not only improves the quality of their life, but also enhances the overall community health.

4.3. Limitations of the study

A significant weakness is that it is based on already-published

literature and therefore can be subject to availability and selection bias. The literature reviewed consists of only available, published papers. This excludes non-peer-reviewed and unpublished papers that may have alternative or complementary opinions. Another weakness is that the papers reviewed are from numerous locations. This is positive, but it might not be sufficient to present all views from all over the globe, particularly from developing countries where behaviors to contribute to sustainability could be significantly different due to social, economic, and environmental conditions. This would make application of the outcomes to different situations difficult since consumer behavior from countries that are underrepresented might not be similar to what has been observed from reviewed papers.

The review touches upon many varied foods and how to be more sustainable, but there probably are new or emerging products and practices which are not discussed in the existing literature. Since food technologies and sustainability practices are evolving very rapidly, the review might not capture recent developments or how individuals are altering their perceptions about these new alternatives. Also, the studies employ a variety of methods, such as qualitative discussion groups, quantitative surveys, and experimental designs. They certainly produce a rich amount of data, but then introduce variability into data that is collected, analyzed, and interpreted. This tends to make it more difficult to compare different studies and might result in inconsistent conclusions.

Ultimately, the research primarily observes how and what people consume, and not how supply chain functions and regulations are framed. All of these contribute significantly to making it simple or difficult for individuals to access the market and engage in sustainable behavior. This type of thinking may not appreciate how government policy, market forces, and new technologies play a role in making it simple or hard for individuals to access and think about sustainable products. The final section summarizes the main findings, highlights their implications, and outlines directions for future research.

5. Conclusion

5.1. Summary of evidence

The present systematic review has collated much evidence demonstrating how numerous factors contribute to how individuals behave when intending to purchase a product that is sustainable. By explicitly positioning agroecology within the consumer behavior literature, this review fills an important gap and offers a consolidated perspective that extends beyond isolated analyses of sustainability attributes. The evidence indicates that despite an increase in interest and intention to behave sustainably (Rossi et al., 2023), there are various factors that render such behavior much less efficacious. The evidence indicates that cost is a significant hindrance. Despite sustainable products being healthier for the environment and ethically (Sciarelli et al., 2021; Zander and Hamm, 2010), their expense tends to dissuade people from purchase. Consumers are willing to pay if there are visible benefits to their health or to the environment, indicating that personal benefits can override concerns about cost.

Another significant driver that influences how people purchase is awareness about the environment (Hartmann and Klaschka, 2017; Škatarić et al., 2021). Those who are concerned about the environment tend to purchase products produced in an environmentally friendly fashion (Melash et al., 2023; Van Loo et al., 2013). This is an indication that we should inform people further about the environment since awareness leads them to be environmentally friendly (Ali et al., 2021; April-Lalonde et al., 2020; Lipan et al., 2021). Others such as gender and age and education level are among the most significant drivers that influence consumer behavior when it comes to sustainability (E Silva et al., 2020; E. Silva et al., 2020; Suki, 2013). Young adults and women are likely to purchase green products (Ali et al., 2021; April-Lalonde et al., 2020; Lipan et al., 2021). These observations among demographics can

be essential when designing targeted promotions that can potentially make campaigns successful.

Health is also a key consideration since most individuals associate sustainable products with improvement to their overall health (Kopainsky et al., 2020; Roos et al., 2022; Uldemolins and de Magistris, 2021). The fact that it resonates with not just health, but sustainability is sure to be very persuasive. Finally, how efficiently and effectively companies can market and label their products has a significant influence over how individuals perceive and behave. Transparent and clear labeling and open and honest labeling, combined with good advertising which reminds people about the actual positives of going green, has been demonstrated to have a significant influence over how individuals behave when buying ecologically friendly products.

The results of this review are also consistent with several of the United Nations' Sustainable Development Goals (SDGs) (FAO, 2018). Specifically, the focus on agro-ecological practices and sustainable food consumption directly contributes to SDG 2, or "Zero Hunger," by supporting sustainable food production practices that could improve food security. At the same time, the contribution of consumer behavior to supporting environmentally sustainable agricultural practices also contributes to SDG 13, or "Climate Action," given the association between agroecological practices and environmental sustainability. In this way, this review's results highlight the importance of consumer involvement in supporting sustainable agriculture as a means of contributing to these broader sustainability goals.

Overall, the results of this systematic review are consistent with the existing literature in terms of the fact that the demand for sustainable food products, as well as agroecological food products, is motivated by environmental, health, and socio-demographic factors. At the same time, this systematic review contributes to the existing literature in the sense that, unlike the existing literature, this research provides an integrative synthesis of the literature in which agroecological practices, which are often implicit in the concept of sustainability, are made explicit in the analysis of consumer behavior. Moreover, this research does not contradict existing literature but rather refines the existing knowledge in this area, revealing gaps, especially in the conceptualization of agroecology, as well as the role of emerging technologies in this area. In addition to these findings, the review provides several practical implications for policymakers and practitioners, especially in relation to support mechanisms, communication strategies, and market incentives. It also provides several directions for further research on consumer engagement in agroecological food systems.

5.2. Future research directions

This article indicates what is known today about what consumers feel about agroecological and sustainable food products and where further research is needed to understand these areas. There are numerous areas through which future research can improve studies of sustainable consumption. To begin, there is a high need for longitudinal studies to analyze how consumers behavior evolves over time, particularly how behaviors adjust to rapidly changing global sustainability and food production technologies. Further research could focus more on the assessment of consumer preferences and the adaptation with the extensive use of technologies (such as the use of AI and IoT) in the food production process.

Research could also benefit from focusing on underrepresented locations, especially developing countries where economic, cultural, and

environmental factors may affect sustainable behaviors. Research would also be improved by directed attention to areas not commonly focused upon, particularly developing nations where economic, cultural, and environmental considerations might influence individuals to behave in a favorable way toward the environment. Research from these regions can provide a richer global context and enable us to identify distinct challenges and opportunities in shaping sustainable consumption around the globe. Moreover, an interdisciplinary assessment synthesizing knowledge from psychology, sociology, economics, and environmental science can bring a full understanding of consumer choice drivers. This approach would indicate how personal, social, and ecological factors all influence individuals when choosing to purchase sustainable products.

Another area for further research of interest is examining how new media and internet shopping influence habits of sustainable consumption. With ecommerce growth, it is perhaps becoming increasingly important for successful web-based marketing campaigns to know how shopping on the internet influences individuals to buy eco-friendly products. There is a need to examine further the supply-side factors that influence how convenient and accessible it is to purchase sustainable products. This involves examining how global trade, agriculture policy, and food supply chain management influence the markets for sustainable products and how individuals behave. Lastly, future studies need to investigate developing and testing new methods to help individuals overcome barriers to sustainable consumption. This could be through new advertising campaigns, education initiatives, or policy reforms that make it simpler and desirable for individuals to make sustainable choices easier and more attractive for consumers.

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CRediT authorship contribution statement

Christina Kleisari: Conceptualization, Data curation, Formal analysis, Methodology, Resources, Validation, Visualization, Writing – original draft. **Leonidas Sotirios Kyrgiakos:** Data curation, Formal analysis, Methodology, Writing – original draft. **Marios Vasileiou:** Resources, Software, Visualization. **Vasileios Angelopoulos:** Conceptualization, Investigation, Resources, Validation, Visualization, Writing – review & editing. **Asimina Oikonomou:** Resources, Software, Writing – review & editing. **Georgios Kleftodimos:** Conceptualization, Methodology, Validation. **Hatem Belhouchette:** Data curation, Methodology, Resources. **Katerina Melfou:** Conceptualization, Formal analysis, Methodology, Resources. **George Vlontzos:** Conceptualization, Supervision, Validation, Visualization, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

APPENDIX

Table 2
List of the overall published papers used in Literature Review

N	Authors	Article Title	Publication Year	Source Title	Cited by
1	Roa-Goyes and Pickering	Promoting a sustainable diet through carbon labeling of food: Insights from young consumers in the Americas	2024	<i>Sustainable Production And Consumption</i>	1
2	Mancuso, De Gianni, Di Vita, Spada, Brun, Spadaro and Zanchini	Understanding Italian consumers' perceptions of tomato agricultural innovation: Exploring the nexus between sustainability, health and consumer beliefs	2024	<i>Journal Of Cleaner Production</i>	1
3	Lizcano-Prada, Maestre-Matos, Mesias, Lami, Giray, Dölekoglu, Bamoi and Martínez-Carrasco	Does Consumers' Cultural Background Affect How They Perceive and Engage in Food Sustainability? A Cross-Cultural Study	2024	<i>Foods</i>	0
4	Areal and Asioli	Heterogeneous preferences and consumer willingness to pay for vitamin D fortification of eggs	2024	<i>Agribusiness</i>	0
5	Choudhary, Khandi, Hassoun, Aadil, Bekhit, Abdi and Bhat	Awareness and acceptance of informed and professional consumers of Jammu and Kashmir about cultured meat	2024	<i>Applied Food Research</i>	0
6	Madu, Onwuka, Nwafor, Ejechi, Ofoeze, Onyemauwa, Ukeje, Eluagu, Olaosebikan and Okoye	Gender-inclusive consumer studies improve cassava breeding in Nigeria	2024	<i>Frontiers In Sociology</i>	0
7	Hamba, Kasule, Mayanja, Biruma, Natabirwa, Sanya, Rubin, Occeili, Adikini	Farmer-preferred traits and variety choices for finger millet in Uganda	2024	<i>Frontiers In Sustainable Food Systems</i>	0
8	Nicolosi, Lagana and Di Gregorio	Habits, Health and Environment in the Purchase of Bakery Products: Consumption Preferences and Sustainable Inclinations before and during COVID-19	2023	<i>Foods</i>	10
9	Proi, Dudinskaya, Naspetti, Ozturk and Zanolì	The Role of Eco-Labels in Making Environmentally Friendly Choices: An Eye-Tracking Study on Aquaculture Products with Italian Consumers	2023	<i>Sustainability</i>	7
10	Mesías, Fernández, Horrillo and Escribano	An approach to the perceptions of Spanish consumers on food sustainability through the use of projective techniques	2023	<i>New Medit</i>	3
11	Thongplew, Onwong, Ransikarbun, and Kotlakome	Mainstreaming local organic foods: organic food provision in a fresh market to promote organic production-consumption system in emerging economy	2023	<i>Environment Development And Sustainability</i>	3
12	Piracci, Boncinelli and Casini	Investigating Consumer Preferences for Sustainable Packaging Through a Different Behavioural Approach: A Random Regret Minimization Application	2023	<i>Environmental & Resource Economics</i>	2
13	Rossi, Zabala, Caracciolo and Blasi	The Value of Crop Diversification: Understanding the Factors Influencing Consumers' WTP for Pasta from Sustainable Agriculture	2023	<i>Agriculture-Basel</i>	2
14	Freschi, Braghieri, Pacelli, Langella, Riviezzì, Paolino and Cosentino	Sensory Profile and Consumer Liking of Sustainable Salamis Differing in Wild Boar Meat and Seasoning Ingredients Addition	2023	<i>Foods</i>	2
15	Traoré, Tamini and Korai	Willingness to pay for credence attributes associated with agri-food products-Evidence from Canada	2023	<i>Canadian Journal Of Agricultural Economics-Revue Canadienne D Agroéconomie</i>	2
16	He, Sun, Yi and Huang	How to promote agricultural enterprises to reduce the use of pesticides and fertilizers? An evolutionary game approach	2023	<i>Frontiers In Sustainable Food Systems</i>	2
17	Wang	Revitalize Traditional Agriculture: Chinese Consumer Perception and Preference of Modern Organic and Sustainable Traditional Rice Products	2023	<i>Sustainability</i>	1
18	Osawe, Grilli and Curtis	Examining food preferences in the face of environmental pressures	2023	<i>Journal Of Agriculture And Food Research</i>	1
19	Stranieri, Ricci, Stiletto and Trestini	How about choosing environmentally friendly beef? Exploring purchase intentions among Italian consumers	2023	<i>Renewable Agriculture And Food Systems</i>	1
20	Doyon, Bergeron, Saulais, Labonte and Provencher	Do Consumers Value Welfare and Environmental Attributes in Egg Production Similarly in Fresh Eggs and Prepared Meals?	2023	<i>Animals</i>	1
21	Lovegrove, O'Sullivan, Tosi, Millan, Todman, Bishop, Chatzifragkou, Clegg, Hammond, Jackson, Jones, Lignou, Macready, McMeel, Parker, Rodriguez-Garcia, Sharp, Shaw, Smith, Tebbit	'Raising the Pulse': The environmental, nutritional and health benefits of pulse-enhanced foods	2023	<i>Nutrition Bulletin</i>	1
22	Mohammadi, Saghayan and Boccia	Antibiotic-Free Poultry Meat Consumption and Its Determinants	2023	<i>Foods</i>	1
23	Zhang, Jin, and Lin	Would consumers help achieve sustainable development in the Qinghai-Tibet Plateau with a forage-livestock balance certification label?	2023	<i>China Agricultural Economic Review</i>	1
24	Mameno and Kubo	Mainstreaming eating agrobiodiversity: Appealing with heron labels and boosting with loach labels	2023	<i>Food Quality And Preference</i>	1
25	Rocchi, Campioni, Brunori and Mariano	Environmental certification of woody charcoal: A choice experiments application	2023	<i>Forest Policy And Economics</i>	1
26	Garg, Leisso, Kim, Mayhew, Song, Jarrett and Kuo	Market potential and value-added opportunities of cold-hardy berries and small fruits in the Intermountain West, USA	2023	<i>Journal Of Food Science</i>	1

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Table 2 (continued)

N	Authors	Article Title	Publication Year	Source Title	Cited by
27	Del Prete and Samoggia	Does fairness matter? Consumers' perception of fairness in the agro-food chain	2023	<i>Frontiers In Sustainable Food Systems</i>	0
28	Trang, Kopp, Tu and Yabe	Urban Vietnamese consumers' preferences for attributes of sustainably produced rice	2023	<i>Journal Of Consumer Marketing</i>	0
29	Uckert, Cavicchi, Soika, Matavel, Mule, Lerantilei, Turoop, Mutia, Ronner, Mithófer Sieber	Consumer preferences and willingness to pay for dried traditional mangos from Kitui - A marketing analysis for Kenya and Germany	2023	<i>Frontiers In Sustainable Food Systems</i>	0
30	Wiedemann, Lauterbach and Häring	In Search of the Niche-Targeting Lamb Meat Consumers in North-East Germany to Communicate the Ecosystem Services of Extensive Sheep Farming Systems	2023	<i>Sustainability</i>	0
31	Ngo, Dang-Xuan, Málqvist, Pham-Duc, Nguyen-Hong, Le-Thi, Nguyen-Viet, Le, Grace, Lindahl, Unger	Impact of perception and assessment of consumers on willingness to pay for upgraded fresh pork: An experimental study in Vietnam	2023	<i>Frontiers In Sustainable Food Systems</i>	0
32	Anders, Malzoni, and An	Altruism and anti-anthropocentrism shape individual choice intentions for pro-environmental and ethical meat credence attributes	2023	<i>Plos One</i>	0
33	Altmann, Anders, Risius, and Mörlein	Information effects on consumer preferences for alternative animal feedstuffs	2022	<i>Food Policy</i>	23
34	Mazzocchi and Sali	Supporting mountain agriculture through mountain product label: a choice experiment approach	2022	<i>Environment Development And Sustainability</i>	19
35	Galati, Miret-Pastor, Siggia, Crescimanno and Fiore	Determinants affecting consumers' attention to fish eco-labels in purchase decisions: a cross-country study	2022	<i>British Food Journal</i>	15
36	Röös, de Groote and Stephan	Meat tastes good, legumes are healthy and meat substitutes are still strange - The practice of protein consumption among Swedish consumers	2022	<i>Appetite</i>	15
37	Grymshi, Crespo-Cebada, Elghannam, Mesías and Díaz-Caro	Understanding consumer attitudes towards ecolabeled food products: A latent class analysis regarding their purchasing motivations	2022	<i>Agribusiness</i>	11
38	Mazzocchi, Orsi, Zilia, Costantini and Bacenetti	Consumer awareness of sustainable supply chains: A choice experiment on Parma ham PDO	2022	<i>Science Of The Total Environment</i>	11
39	Bimbo, Viscecchia, De Devitiis, Seccia, Roma, De Boni	How Do Italian Consumers Value Sustainable Certifications on Fish?-An Explorative Analysis	2022	<i>Sustainability</i>	9
40	Ma, Liu, Meng, Florkowski and Mu	Impact of Food Sustainability Labels on the Price of Rice in Online Sales	2022	<i>Foods</i>	9
41	Muça, Pomianek and Peneva	The Role of GI Products or Local Products in the Environment-Consumer Awareness and Preferences in Albania, Bulgaria and Poland	2022	<i>Sustainability</i>	9
42	Merlino, Sciuullo, Pettenati, Sottile, Peano, Massaglia	Local Production: What Do Consumers Think?	2022	<i>Sustainability</i>	7
43	Pagliarini, Spinelli, Proserpio, Monteleone, Fia, Laureati, Toschi, Dinnella	Sensory perception and food neophobia drive liking of functional plant-based food enriched with winemaking by-products	2022	<i>Journal Of Sensory Studies</i>	7
44	Lauterbach and Bantle	For More Diversity, Better Taste and My Own Health Exploring Organic Consumers' Purchasing Motives for Heirloom Vegetable Varieties	2022	<i>Sustainability</i>	7
45	Liang, Hua, Cai, Li, Wang and Li	Knowledge of Animal Welfare and Consumers' Behavioral Intentions in China: A Moderated Mediation Model of Product Cognition and Empathy	2022	<i>Animals</i>	5
46	Vecchio, Pomarici, Giampietri, Borrello	Consumer acceptance of fungus-resistant grape wines: Evidence from Italy, the UK, and the USA	2022	<i>Plos One</i>	5
47	Zanchini, Blanc, Pippinato, Poratelli, Bruzzese, Brun	Enhancing wood products through ENplus, FSC and PEFC certifications: Which attributes do consumers value the most?	2022	<i>Forest Policy And Economics</i>	4
48	Bo and Yang	Is consumers' willingness to pay premium for agricultural brand labels sustainable? evidence from Chinese consumers' random n-price auction experiment	2022	<i>British Food Journal</i>	3
49	Haider, Essl, Zulka, Schindler	Achieving Transformative Change in Food Consumption in Austria: A Survey on Opportunities and Obstacles	2022	<i>Sustainability</i>	3
50	Carneiro, Drape, Neill, Zhang, O'Keefe, Duncan	Assessing Consumer Preferences and Intentions to Buy Edamame Produced in the US	2022	<i>Frontiers In Sustainable Food Systems</i>	3
51	Iweala and Sun	The many aspects of voluntary sustainability governance: Unpacking consumers' support for tea standards in China and the UK	2022	<i>Cleaner And Responsible Consumption</i>	2
52	Allenden, Hine, Craig, Cowie, McGreevy, Lykins	What should we eat? Realistic solutions for reducing our food footprint	2022	<i>Sustainable Production And Consumption</i>	2
53	Coderoni and Perito	Approaches for reducing wastes in the agricultural sector. An analysis of Millennials' willingness to buy food with upcycled ingredients	2021	<i>Waste Management</i>	44
54	Wojciechowska-Solis, Barska	Exploring the Preferences of Consumers' Organic Products in Aspects of Sustainable Consumption: The Case of the Polish Consumer	2021	<i>Agriculture-Basel</i>	38
55	Profeta, Baune, Smetana, Bornkessel, Broucke, Van Royen, Enneking, Weiss, Heinz, Hieke, Terjung	Preferences of German Consumers for Meat Products Blended with Plant-Based Proteins	2021	<i>Sustainability</i>	25
56	Mazzocchi, Orsi and Sali	Consumers' Attitudes for Sustainable Mountain Cheese	2021	<i>Sustainability</i>	22

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Table 2 (continued)

N	Authors	Article Title	Publication Year	Source Title	Cited by
57	Yang, Panjaitan, Ujiie, Wann and Chen	Comparison of food values for consumers' preferences on imported fruits and vegetables within Japan, Taiwan, and Indonesia	2021	<i>Food Quality And Preference</i>	22
58	Dudinskaya, Naspetti, Arsenos, Caramelle-Holtz, Latvala, Martin-Collado, Orsini, Ozturk, Zanoli	European Consumers' Willingness to Pay for Red Meat Labelling Attributes	2021	<i>Animals</i>	18
59	Schulze, Spiller and Risius	Do consumers prefer pasture-raised dual-purpose cattle when considering meat products? A hypothetical discrete choice experiment for the case of minced beef	2021	<i>Meat Science</i>	16
60	de Haas, Oliemans and van Gerwen	The Need for an Alternative to Culling Day-Old Male Layer Chicks: A Survey on Awareness, Alternatives, and the Willingness to Pay for Alternatives in a Selected Population of Dutch Citizens	2021	<i>Frontiers In Veterinary Science</i>	16
61	Yang, Chen, Xu, Zheng, Zhao, Yang, Ruan, Han, Chen	Consumers' preferences for health-related and low-carbon attributes of rice: A choice experiment	2021	<i>Journal Of Cleaner Production</i>	14
62	Ali, Akter and Fogarassy	Analysis of Circular Thinking in Consumer Purchase Intention to Buy Sustainable Waste-To-Value (WTV) Foods	2021	<i>Sustainability</i>	13
63	Taillie, Chauvenet, Grummon, Hall, Waterlander, Prestemon, Jaacks	Testing front-of-package warnings to discourage red meat consumption: a randomized experiment with US meat consumers	2021	<i>International Journal Of Behavioral Nutrition And Physical Activity</i>	13
64	Baldi, Trentinaglia, Mancuso, Peri	Attitude toward environmental protection and toward nature: How do they shape consumer behaviour for a sustainable tomato?	2021	<i>Food Quality And Preference</i>	12
65	Cammarelle, Viscecchia, Bimbo	Intention to Purchase Milk Packaged in Biodegradable Packaging: Evidence from Italian Consumers	2021	<i>Foods</i>	12
66	Smith, Lal, Oluoch, Vedwan and Smith	Valuation of sustainable attributes of hard apple cider: A best-worst choice approach	2021	<i>Journal Of Cleaner Production</i>	11
67	Scozzafava, Gerini, Boncinelli, Contini, Casini	How much is a bottle of conventional, organic or biodynamic wine worth? Results of an experimental auction	2021	<i>Food Quality And Preference</i>	11
68	Olum, Wesana, Mawadri, Nakiranda and Odongo	Insects as food: Illuminating the food neophobia and socio-cultural dynamics of insect consumption in Uganda	2021	<i>International Journal Of Tropical Insect Science</i>	9
69	Sgroi	Food traditions and consumer preferences for cured meats: Role of information in geographical indications	2021	<i>International Journal Of Gastronomy And Food Science</i>	7
70	Ilie, Ladaru, Diaconasa, Stoian	Consumer Choice for Milk and Dairy in Romania: Does Income Really Have an Influence?	2021	<i>Sustainability</i>	7
71	De Daverio, Mancuso, Peri, Baldi	How Does Consumers' Care for Origin Shape Their Behavioural Gap for Environmentally Friendly Products?	2021	<i>Sustainability</i>	5
72	Hwang, Lee, Jo, Cho, Moon	The Effect of Sustainability-Related Information on the Sensory Evaluation and Purchase Behavior towards Salami Products	2021	<i>Food Science Of Animal Resources</i>	5
73	Shen, Hamm, Gao, Ryser, Zhang	Assessing Consumer Buy and Pay Preferences for Labeled Food Products with Statistical and Machine Learning Methods	2021	<i>Journal Of Food Protection</i>	5
74	Lipan, Cano-Lamadrid, Vázquez-Araújo, Issa-Issa, Nems, Corell, López-Lluch, Carbonell-Barrachina	HydroSOSustainable Concept: How Does Information Influence Consumer Expectations towards Roasted Almonds?	2021	<i>Agronomy-Basel</i>	3
75	Tavárez and Alamo	Using Choice Experiments to Estimate the Value of Differentiated Cow's Milk in Puerto Rico	2021	<i>Frontiers In Sustainable Food Systems</i>	0
76	Higgins, Hutchinson, Longo	Willingness-to-Pay for Eco-Labeled Forest Products in Northern Ireland: An Experimental Auction Approach	2020	<i>Journal Of Behavioral And Experimental Economics</i>	25
77	Bentivoglio, Finco, Bucci, Staffolani	Is There a Promising Market for the A2 Milk? Analysis of Italian Consumer Preferences	2020	<i>Sustainability</i>	21
78	Eldesouky, Mesias, Escribano	Consumer Assessment of Sustainability Traits in Meat Production. A Choice Experiment Study in Spain	2020	<i>Sustainability</i>	21
79	Ruggeri, Mazzocchi and Corsi	Drinking biodiversity: a choice experiment on Franciacorta sparkling wines	2020	<i>British Food Journal</i>	19
80	Nassivera, Gallenti, Troiano, Marangon, Cosmina, Bogoni, Campisi, Carzedda	Italian millennials' preferences for wine: an exploratory study	2020	<i>British Food Journal</i>	19
81	April-Lalonde, Latorre, Paredes, Hurtado, Muñoz, Deaconu, Cole, Batal	Characteristics and Motivations of Consumers of Direct Purchasing Channels and the Perceived Barriers to Alternative Food Purchase: A Cross-Sectional Study in the Ecuadorian Andes	2020	<i>Sustainability</i>	15
82	Testa, Migliore, Schifani, Tinebra, Farina	Chemical-Physical, Sensory Analyses and Consumers' Quality Perception of Local vs. Imported Loquat Fruits: A Sustainable Development Perspective	2020	<i>Agronomy-Basel</i>	14
83	Isaak and Lentz	Consumer Preferences for Sustainability in Food and Non-Food Horticulture Production	2020	<i>Sustainability</i>	12
84	Peira, Cortese, Lombardi and Bollani	Grass-Fed Milk Perception: Profiling Italian Consumer	2020	<i>Sustainability</i>	13
85	Owusu-Sekyere, Abdulai, Jordaan, Hansson	Heterogeneous demand for ecologically sustainable products on ensuring environmental sustainability in South Africa	2020	<i>Environmental Economics And Policy Studies</i>	5

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Table 2 (continued)

N	Authors	Article Title	Publication Year	Source Title	Cited by
86	Kopainsky, Frehner, Muller	Sustainable and healthy diets: Synergies and trade-offs in Switzerland	2020	<i>Systems Research And Behavioral Science</i>	5
87	Donadini, Bertuzzi, Kordialik-Bogacka, Cywinska, Rossi, Spigno, Porretta	Investigating patterns of millennials' interest in gluten-free beer in Poland: A question of beer price and alcohol content	2020	<i>Journal Of Food Science</i>	5
88	Dalampira, Papadaki-Klavdianou, Nastis, Partalidou, Michailidis	Food for thought: an assessment tool for environmental food identities	2020	<i>International Journal Of Sustainable Development And World Ecology</i>	3
89	Weinrich and Elshiewy	Preference and willingness to pay for meat substitutes based on micro-algae	2019	<i>Appetite</i>	54
90	Jürkenbeck, Heumann, Spiller	Sustainability Matters: Consumer Acceptance of Different Vertical Farming Systems	2019	<i>Sustainability</i>	55
91	Mertens, Kuijsten, van Zanten, Kaptijn, Dofková, Mistura, D'Addezio, Turrini, Dubuisson, Havard, Trolle, Geleijnse, van't Veer	Dietary choices and environmental impact in four European countries	2019	<i>Journal Of Cleaner Production</i>	52
92	De Boni, Pasqualone, Roma and Acciani	Traditions, health and environment as bread purchase drivers: A choice experiment on high-quality artisanal Italian bread	2019	<i>Journal Of Cleaner Production</i>	44
93	Chen, Marsh, Tozer and Galinato	Biotechnology to sustainability: Consumer preferences for food products grown on biodegradable mulches	2019	<i>Food Research International</i>	21
94	Dahlin, Beuthner, Halbherr, Kurz, Nelles, Herbes	Sustainable compost and potting soil marketing: Private gardener preferences	2019	<i>Journal Of Cleaner Production</i>	17
95	Jürkenbeck, Spiller and Meyerding	Tomato attributes and consumer preferences - a consumer segmentation approach	2019	<i>British Food Journal</i>	15
96	Torquati, Paffarini, Tempesta and Vecchiato	Evaluating consumer perceptions of social farming through choice modelling	2019	<i>Sustainable Production And Consumption</i>	15
97	Foti, Scuderi, Stella, Timpanaro	Consumer purchasing behaviour for biodiversity-friendly vegetable products: increasing importance of informal relationships	2019	<i>Agricultural Economics-Zemedelska Ekonomika</i>	8
98	Tempesta, Vecchiato, Nassivera, Bugatti, Torquati	Consumers Demand for Social Farming Products: An Analysis with Discrete Choice Experiments	2019	<i>Sustainability</i>	3
99	Lim, Hu and Nayga	Is Marine Stewardship Council's ecolabel a rising tide for all? Consumers' willingness to pay for origin-differentiated ecolabeled canned tuna	2018	<i>Marine Policy</i>	42
100	Yang, Hobbs and Natcher	Assessing consumer willingness to pay for Arctic food products	2020	<i>Food Policy</i>	36
101	Torquati, Tempesta, Vecchiato, Venanzi	Tasty or Sustainable? The Effect of Product Sensory Experience on a Sustainable New Food Product: An Application of Discrete Choice Experiments on Chianina Tinned Beef	2018	<i>Sustainability</i>	27
102	Deppermann, Havlík, Valin, Boere, Herrero, Vervoort, Mathijs	The market impacts of shortening feed supply chains in Europe	2018	<i>Food Security</i>	16
103	Zheng Wang and Lu	Consumer Purchase Intentions for Sustainable Wild Salmon in the Chinese Market and Implications for Agribusiness Decisions	2018	<i>Sustainability</i>	15
104	Resano and Sanjuán	Exploring the Role of Mountain Origin and Autochthonous Breed on Urban Consumers' Acceptability	2018	<i>Sustainability</i>	14
105	Schmitt, Galli, Menozzi, Maye, Touzard, Marescotti, Six, Brunori	Comparing the sustainability of local and global food products in Europe	2017	<i>Journal Of Cleaner Production</i>	105
106	Stranieri, Ricci and Banterle	Convenience food with environmentally-sustainable attributes: A consumer perspective	2017	<i>Appetite</i>	73
107	Lazzarini, Visschers, Siegrist	Our own country is best: Factors influencing consumers' sustainability perceptions of plant-based foods	2017	<i>Food Quality And Preference</i>	45
108	Wakamatsu, Anderson, Uchida, Roheim	Pricing Ecolabeled Seafood Products with Heterogeneous Preferences: An Auction Experiment in Japan	2017	<i>Marine Resource Economics</i>	18
109	D'Amico, Di Vita, Monaco	Exploring environmental consciousness and consumer preferences for organic wines without sulfites	2016	<i>Journal Of Cleaner Production</i>	144
110	Mancuso, Baldi and Gasco	An empirical study on consumer acceptance of farmed fish fed on insect meals: the Italian case	2016	<i>Aquaculture International</i>	63
111	Giampietri, Koemle, Yu, Finco	Consumers' Sense of Farmers' Markets: Tasting Sustainability or Just Purchasing Food?	2016	<i>Sustainability</i>	49
112	Fusi, Guidetti and Azapagic	Evaluation of environmental impacts in the catering sector: the case of pasta	2016	<i>Journal Of Cleaner Production</i>	39
113	van Herpen, Immink, van den Puttelaa	Organics unpacked: The influence of packaging on the choice for organic fruits and vegetables	2016	<i>Food Quality And Preference</i>	29
114	Dahlin, Halbherr, Kurz, Nelles, Herbes	Marketing Green Fertilizers: Insights into Consumer Preferences	2016	<i>Sustainability</i>	15
115	Voinea, Atanase, Schileru	Perceptions of the slow food cultural trend among the youth	2016	<i>Amfiteatru Economic</i>	7
116	Nykytiuk,	The development capacity and dynamics of the medicinal herbs market in Ukraine	2016	<i>Emirates Journal Of Food And Agriculture</i>	2
117	da Costa Fontes, Santos	Are Portuguese consumers ready to understand the risks from pesticide use?	2016	<i>New Medit</i>	1

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Table 2 (continued)

N	Authors	Article Title	Publication Year	Source Title	Cited by
118	Migliore, Schifani, Cembalo	Opening the black box of food quality in the short supply chain: Effects of conventions of quality on consumer choice	2015	<i>Food Quality And Preference</i>	96
119	Hussein, Silva and Fraser	Linking intrinsic quality attributes of agricultural produce to revealed consumer preferences	2015	<i>Food Quality And Preference</i>	11
120	Cafarelli, Pilone, Conte, Gammariello, Del Nobile	Development of Consumer Acceptable Products using CUB Analysis: An Example with burgers from Dairy Cattle	2015	<i>Journal Of Sensory Studies</i>	3
121	Behe, Campbell, Hall, Khachatryan, Dennis and Yue	Consumer Preferences for Local and Sustainable Plant Production Characteristics	2013	<i>Hortscience</i>	60
122	Silva, Klink, McKinney, Price, Deming, Rivedal and Colquhoun	Attitudes of dining customers towards sustainability-related food values at a public University campus	2020	<i>Renewable Agriculture And Food Systems</i>	10

Table 3

Main information extracted from the 122 articles of Literature Review

N	Article	Country	Product	N of Consumers	Study design	Practice	Agroecology term	Factors
1	Roa-Goyes and Pickering (2024)	America, Canada, Argentina	Food products	815	Quantitative (EFA)	Carbon labelling	-	Gender, Education
2	Mancuso et al. (2024)	Italy	Tomatoes	445	Quantitative (cluster)	Organic, Pesticides-free	-	Price, Promotional strategies
3	Lizcano-Prada et al. (2024)	Spain, Turkey, Colombia	Sustainable food products	324 341 335	Quantitative (cluster, WTP)	Sustainable food	-	Gender, Age, Education, Income, Country, Price
4	Areal and Asioli (2024)	United Kingdom	Eggs	370	Quantitative (WTP)	Organic, Animal welfare, Ethical production	-	Age, Price, Production method
5	Choudhary et al. (2024)	India	Cultured meat	400	Quantitative (cluster)	Animal welfare, Ethical production	-	Safety, Environmental concern Media
6	Madu et al. (2024)	Nigeria	Cassava	N/A	Qualitative (focus groups)	Crop rotation	✓	Gender, Age
7	Hamba et al. (2024)	Uganda	Finger millet	170	Qualitative (focus groups)	N/A	✓	Gender, Age
8	Nicolosi et al. (2023)	Italy	Bakery products	720	Quantitative (EFA)	Locally-produced, No food waste	-	Origin of products
9	Proi et al. (2023)	Italy	Fish	61	Quantitative (ANOVA)	Eco-label, Sustainability	-	Price, Safety
10	Mesías et al. (2023)	Spain	Fruits, Vegetables, Eggs, Coffee, Honey, Oil, Rice, Nuts, Meat, Dairy products	162	Quantitative (cluster)	Organic products, Eco-label	-	Gender, Age, Income
11	Thongplew et al. (2023)	Thailand	Organic food	22	Qualitative	Locally-produced, Organic	-	Price, Health, Environmental concern
12	Piracci et al. (2023)	Italy	Vegetables	395	Quantitative (WTP)	Bioplastic packaging	-	Price, Organic
13	Rossi et al. (2023)	Italy	Pasta	185	Quantitative (WTP)	Sustainable agriculture, Agrobiodiversity	✓	Gender, Age, Household size, Purchase habits
14	Freschi et al. (2023)	Italy	Sustainable salamis	78	Quantitative (PCA)	Sustainable production	-	Color, Taste, Flavor
15	Traoré et al. (2023)	Canada	Fresh apples, Pork chops	2001	Quantitative (WTP)	Chemical-free, Environmentally friendly	-	Origin, Safety, Environmental impact, Price
16	He et al. (2023)	China	Agricultural products	N/A	Qualitative	Agrochemical reduction, Green production	-	Safety, Quality
17	Wang (2023)	China	Rice	1442	Quantitative (WTP)	Organic, Traditional products, Sustainable products	✓	Safety, Income, Household size
18	Osawe et al. (2023)	Ireland	Meat, Vegetables	1249	Quantitative (LCM, WTP)	Eco-label, Water use, Carbon footprint	-	Price, Age, Gender, Income
19	Stranieri et al. (2023)	Italy	Beef	1139	Quantitative (CFA)	Eco-label, Sustainable products	-	Age, Trust, Education, Environmental concern
20	Doyon et al. (2023)	Canada	Eggs	905	Quantitative	Animal welfare, Sustainable production	-	Treatment, Nutrition, Environmental concern

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Table 3 (continued)

N	Article	Country	Product	N of Consumers	Study design	Practice	Agroecology term	Factors
21	Lovegrove et al. (2023)	United Kingdom	Pulses, Fava beans, Flour, Wheat, Bread	N/A	Qualitative	Sustainability	-	Nutritional Knowledge, Diet quality
22	Mohammadi et al. (2023)	Iran	Poultry	360	Quantitative (EFA)	Sustainable production, Antibiotic-free	-	Age, Education, Income, Marketing strategies, Price, Awareness
23	Zhang et al. (2023)	China	Meat, Dairy products	2999	Quantitative (WTP)	Grassland-based livestock, Sustainable production	-	Price, Age, Animal feed
24	(Mameno and Kubo (2023)	Japan	Rice	231	Quantitative (WTP)	Organic, Conservation marketing Eco-label, Wildlife-friendly label, Biodiversity-friendly farming, Chemical-free, Sustainable food choice, Locally-produced food	-	Environmental concern
25	Rocchi et al. (2023)	Italy	Wood charcoal	1161	Quantitative (WTP, LCA)	Ecosystem services, Agroforestry	-	Origin, Price
26	Garg et al. (2023)	USA	Berries, Cherries	115	Quantitative (WTP)	Locally-produced food	-	Age, Quality, Price, Support local production
27	Khemira et al. (2023)	Italy	N/A	529	Quantitative (PCA)	Fair trade, Locally-produced food	-	Age, Price, Environmental concern
28	Trang et al. (2023)	Vietnam	Rice	360	Quantitative (LCM, MNL)	Sustainable produced food, Chemical reduction	-	Price, Environmental concern
29	Uckert et al. (2023)	Kenya, Germany	Mango	304	Quantitative (WTP, PCT)	Traditional production, Eco-label	✓	Age, Taste, Eco-label
30	Wiedemann et al. (2023)	Germany	Lamp meat	387	Quantitative (PCA, cluster)	Ecosystem services, Biodiversity, Locally-produced food, Animal welfare	-	Price, Environmental concern, Animal welfare, Cooking aversion, Knowledge
31	Ngo et al. (2023)	Vietnam	Pork meat	152	Quantitative (WTP)	Ethical consumption, Sustainability	-	Concerns, Safety, Knowledge
32	Anders et al. (2023a, 2023b)	Canada	N/A	1602	Quantitative (SEM)	Animal welfare, Modern agriculture, Ethical agriculture	-	Age, Gender, Household size, Knowledge, Searching information
33	Altmann et al. (2022)	Germany	Chicken breast	1192	Quantitative (WTP)	Alternative animal feed, Insects as animal feed	-	Price
34	Mazzocchi and Sali (2022)	Italy	Cheese	197	Quantitative (WTP)	Sustainable label, Eco-label, Organic food, Animal welfare	-	Price, Origin, Animal welfare
35	Galati et al. (2022)	Italy, Spain	Fish, Seafood	354	Quantitative (PCA, WTP)	Eco-label	-	Awareness, Health, Label information
36	Röös et al. (2022)	Sweeden	Meat, Legumes	332	Quantitative (ANOVA)	Protein alternatives	-	Gender, Environmental concern, Origin
37	Grymshi et al. (2022)	Spain	Food products	419	Quantitative (cluster analysis, LCA)	Eco-label	-	Price, Eco-label, Supply, Awareness, Education
38	Mazzocchi et al. (2022)	Italy	Parma ham PDO	340	Quantitative (WTP)	Animal welfare, Sustainable production, Antibiotic free	-	Education, Price, Animal welfare
39	Bimbo et al. (2022)	Italy	Fish, Seafood	312	Quantitative (EFA)	Aquaculture, Organic products	-	Nutrition, Organic consumption, Price, Health
40	Ma et al. (2022)	China	Rice	2492	Quantitative (WTP)	Sustainable label, e-commerce, organic food label	✓	Sustainable label, organic consumption, Price, Origin
41	Muça et al. (2022)	Poland, Albania, Bulgaria	Traditional food, PGI	300, 262, 250	Quantitative (ANOVA)	Locally-produced, traditional products, organic products	-	Awareness, Price, Origin, Locality
42	Merlino et al. (2022)	Italy	Locally-produced food	500	Quantitative (cluster)	Locally-produced, organic products	-	Environment, Price, Quality, Health, Organic, Traceability
43	Pagliarini et al. (2022)	Italy	Plant-based food	200	Quantitative (cluster)	Sustainability	-	Neophobia, Health, Taste
44	Lauterbach and Bantle (2022)	Germany	Vegetables	15	Qualitative (focus groups)	Organic products	-	Health, Taste, Organic, Variety
45	Liang et al. (2022)	China	N/A	1499	Quantitative (cluster)	Animal welfare	-	Knowledge, Gender, Age, Income

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Table 3 (continued)

N	Article	Country	Product	N of Consumers	Study design	Practice	Agroecology term	Factors
46	Vecchio et al. (2022)	Italy, United Kingdom, USA	Wines	752, 858, 856	Quantitative (WTP)	Resistance, Sustainable production	-	Neophobia, Age, Environmental concern
47	Zanchini et al. (2022)	Italy	Wood products	252	Quantitative (conjoint)	Sustainability, Agroforestry	-	Price, Quality, Sustainability, Age, Education
48	Bo and Yang (2022)	China	Grapes	310	Quantitative (WTP)	Sustainable label	-	Trust, Income, Education, Experience
49	Haider et al. (2022)	Austria	Meat and alternatives	320	N/A	Biodiversity, Animal welfare, Alternative diet, Locally produced food	-	Taste, Price, Biodiversity, Environmental concern
50	Carneiro et al. (2022)	USA (Atlantic and Southeast states)	Edamame (vegetable soybean)	309	Quantitative (cluster)	Locally produced feed, Organic products	-	Freshness, Organic, Locally produced, Price
51	Iweala and Sun (2022)	China, United Kingdom	Tea	918, 905	Quantitative (WTP)	Protection of native vegetation and wildlife	-	Environmental concern, Origin, Price, Safety
52	Allenden et al. (2022)	Australia	Plant-rich diet	253	Quantitative	Food footprint, Animal welfare, Plant-rich diets	-	Animal welfare, Health, Environment
53	Coderoni and Perito (2021)	Italy	N/A	317	Quantitative (WTB)	Reducing food waste	-	Health, Neophobia, Gender, Label
54	Wojciechowska-Solis & Barska (2021)	Poland	Organic products (eggs, fresh fruit and vegetables, honey, cow's milk and its derivatives, as well as cereal	1067	Quantitative	Organic production, Ethical aspects, Animal welfare, Local production, Artificial fertilizers	-	Environmental concern, Animal welfare, Self life
55	Profeta et al. (2021)	Germany	Meat, plant- based proteins	500	Quantitative	Alternative protein source	-	Animal welfare, Environmental concern, organic consumption
56	Mazzocchi et al. (2021)	Italy	Parma ham PDO	340	Quantitative (WTP)	Animal welfare, Sustainable production, Antibiotic free	-	Education, Price, Animal welfare
57	Yang et al. (2021a, 2021b)	Japan, Taiwan, Indonesia	Imported fruits and vegetables	500, 333, 517	Quantitative	Origin, Labelling	-	Origin, Safety
58	Dudinskaya et al. (2021)	Finland, France, Greece, Italy, Spain, Turkey, United Kingdom	Red meat	2900	Quantitative (WTP)	Eco-label, origin, Health claims	-	Origin, Organic, Carbon footprint
59	Schulze et al. (2021)	Germany	Sustainable beef	513	Quantitative (WTP)	Sustainable livestock, Animal welfare	-	Organic, Locally produced
60	de Haas et al. (2021)	Denmark	Chicken, Eggs	259	Quantitative (WTP)	Sustainable alternatives	-	Animal welfare, Knowledge, Awareness, Income level
61	Yang et al. (2021a, 2021b)	China	Rice	1250	Quantitative (WTP)	Low carbon emissions, Sustainable production	-	Sustainability, Education, Age, Subjective knowledge
62	Ali et al. (2021)	Hungary	N/A	499	Quantitative	Circular economy, Sustainable production, Food waste reduction	-	Gender, Age, Education, Origin, Label, Organic, Nutritional value
63	Taillie et al. (2021)	USA	Red meat, Chicken, Vegetarian diet	1235	Quantitative	Sustainable packaging, Environmental warning, Labeling, Carbon footprint reduction	-	Health, Age, Gender, Ethnicity, Income
64	Baldi et al. (2021)	Italy, United Kingdom	Tomatoes	500, 500	Quantitative (WTP)	Sustainable production, Environment protection, decrease water use and agrochemicals	-	Price, origin
65	Cammarelle et al. (2021)	Italy	Milk	260	Quantitative (SEM, WTP)	Biodegradable packaging, Organic waste	-	Sustainable packaging, subjective norms
66	Smith et al. (2021)	US Mid-Atlantic	Hard apple cider	630	Quantitative (WTP)	Sustainable production, Organic agriculture, Soil	-	Attitude about sustainable, Social responsibility

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Table 3 (continued)

N	Article	Country	Product	N of Consumers	Study design	Practice	Agroecology term	Factors
67	Scozzafava et al. (2021)	Italy	Wine	100	Quantitative (WTP)	management, pest and disease management Biodynamic packaging, Eco-label, Sustainable production, Organic food	-	Familiarity with biodynamics, Price, Knowledge
68	Olum et al. (2021)	Uganda	Insect	310	Quantitative (EFA, VIF)	Sustainable consumption, Alternative protein source, Reduction of carbon footprint	-	Place of origin, Household size, Neophobia, Age, Trust, Gender
69	Sgroi (2021)	Italy	Cured meats (Salame), PGI	N/A	N/A	Waste management, Sustainable production	-	Origin, Environment
70	Ilie et al. (2021)	Romania	Milk, Dairy products	847	Quantitative (WTP)	Sustainable food, Locally- produced, Ecological products	-	Country of origin, Gender, Income
71	De Daverio et al. (2021)	Italy	Tomato	932	Quantitative (Factor, WTP)	Environmentally friendly products, Reduction of usage of fertilizers and pesticides, locally produced, Water footprint	-	Nutritional value, Origin, Environmental concern, Taste, Health, Price
72	Hwang et al. (2021)	Korea	SMAWP Salami products	140	N/A	Sustainable livestock, Animal welfare	-	Food information, perceptions, Livestock production methods
73	Shen et al. (2021a, 2021b)	USA	N/A	740	Quantitative (Factor, WTP)	Food labelling, Sustainability, Machine learning	-	Age, Awareness, Ethnicity
74	Lipan et al. (2021)	Spain, Poland	Roasted almonds	300	Quantitative (ANOVA, WTP)	Water footprint, Sustainable production	-	Gender, Age, Income, Education, Employment
75	Tavárez and Alamo (2021)	Puerto Rico	Milk	134	Quantitative (WTP)	Sustainable production system, Animal welfare, eco-friendly	-	Locality, Environment concern, Animal welfare
76	Higgins et al. (2020)	Ireland	N/A	113	Quantitative (ANOVA, WTP)	Eco-label, environmentally friendly	-	Education, Information
77	Bentivoglio et al. (2020)	Italy	Milk	1277	Quantitative (WTP)	Functional food, Sustainable production	-	Price, Origin, Quality, Organic farming, Purchasing functional foods
78	Eldesouky et al. (2020a, 2020b)	Spain	Meat	285	Quantitative (Cluster)	Organic farming, Eco-label, Sustainable production, Carbon footprint	-	Origin, Organic production, Animal Welfare, Price, Eco-label
79	Ruggeri et al. (2020)	Italy	Sparkling wine	334	Quantitative (WTP)	Organic production, Biodiversity-friendly wine	-	Price, Wine education, Gender, Knowledge degree of labels
80	Nassivera et al. (2020)	Italy	Wine	759	Quantitative (EFA, WTP)	Carbon- neutral brands, Local origin	-	Age, Wine experience, Awareness
81	April-Lalonde et al. (2020)	Ecuador	Agroecological products	2914	Quantitative	Sustainable consumption, Agroecological practices, Eco-label, Nutrition label	✓	Nutritional value, Health, City of residence, Age, Education, Occupation
82	Testa et al. (2020)	Italy, Spain	Loquat fruits	301	Qualitative	Origin, locally produced	-	Price, Health, Packaging, Origin, Quality
83	Isaak and Lentz (2020)	Germany	Fruit, Vegetables	530	Quantitative (PCA)	Horticulture, Sustainability,	-	Climate friendly lifestyle, Sustainability
84	Peira et al. (2020)	Italy	(grass-fed) Milk	750	Quantitative (PCA, HCA)	Sustainable Consumption	-	Environmental concern, Nutrition consciousness
85	Owusu-Sekyere et al. (2020)	South Africa	N/A	150	Qualitative	Carbon footprint, Sustainable production, Environmental sustainability, Water footprint	-	N/A
86	Kopainsky et al. (2020)	Switzerland	Animal and plant products	N/A	Qualitative (System Dynamic Model)	Sustainable diet	-	Healthy diet
87	Donadini et al. (2020)	Poland	Gluten-free beer	200	Quantitative (Conjoint analysis)	Organic farming	-	Gender, price

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Table 3 (continued)

N	Article	Country	Product	N of Consumers	Study design	Practice	Agroecology term	Factors
88	Dalampira et al. (2020)	Greece	Beekeeping plants, Honey	150	Quantitative (CATPCA, ANOVA)	Multifunctional farms	-	Environmental consciousness, Sustainable food attitude
89	Weinrich and Elshiewy (2019)	Germany, Netherlands, France	Meat	315, 308, 315	Quantitative (Conjoint analysis, WTP)	Meat substitutes based on micro-algae, Organic farming	-	Environmental concern, Origin
90	Jürkenbeck et al. (2019a, 2019b)	Germany	N/A	482	Quantitative (SEM, ANOVA)	Vertical farming systems, Sustainable farming	-	Environmental concern, Knowledge
91	Mertens et al. (2019) Mertens et al. (2019)	Denmark, Check Republic, Italy, France	Meat, fish, eggs, milk, dairy products, grains, fruits, vegetables, beverages	1,710, 1,666, 2,184, 2246	Quantitative (Stratified analysis, LCA)	Sustainable farming	-	Environmental concern, Age, Gender, Education
92	De Boni et al. (2019) De Boni et al. (2019)	Italy	Bread	266	Quantitative (MLR)	Organic farming, Food waste	-	Price, Sustainability Knowledge
93	Chen et al. (2019a, 2019b)	United States	Strawberries	1510	Quantitative (WTP)	Biodegradable mulches	-	Knowledge, Price, Brand, Eco-production, Chemical importance, Nutritional value, Environmentalism, Gender, Education, Income
94	Dahlin et al. (2019)	Germany	N/A	507	Qualitative (Conjoint analysis)	Peatlands, Organic farming	-	Age, Gender, Income, Price, Brand, Environmental concern
95	Jürkenbeck, Spiller, et al. (2019)	Germany	Tomato	1027	Quantitative (PCA)	Sustainable farming	-	Price, Food color, Taste, Climate- friendly behavior
96	Torquati et al. (2019)	Italy	Zucchini, eggs	255	Quantitative (WTP)	Ethical consumption, Organic farming	-	Ethical consumption, Environmental concern, Price, Origin
97	Foti et al. (2019)	Italy	Vegetables	1000	Quantitative (SNA)	Biodiversity- friendly farming	✓ (agro-biodiversity)	Locality, Health, Knowledge
98	Tempesta et al. (2019)	Italy	Eggs	225	Quantitative (DCE, WTP)	Social farming, Organic farming	-	Place of origin, Organic, Price
99	Lim et al. (2018)	USA	Canned tuna	1032	Quantitative (WTP)	Sustainable seafood, Ecolabel	-	Origin, Price, Age
100	Yang et al. (2020)	Canada	Arctic food products	1342	Quantitative (WTP)	Sustainability certification	-	Origin, Price
101	B. Torquati et al. (2018a); B. Torquati et al. (2018b)	Italy	Meat	127	Qualitative (focus groups), Quantitative (WTP)	Sustainable food products, Organic breeding	-	Origin, Price, Age
102	Deppermann et al. (2018)	Europe	Livestock products	-	Qualitative (GLOBIOM)	Sustainable feeding	✓	Price, Origin, Kind of feed, Locality
103	Zheng et al. (2018a, 2018b)	China	Salmon	1017	Quantitative (Factor analysis)	Sustainable wild species	-	Age, Education, Origin, Environmental concern, Production method
104	Resano and Sanjuán (2018)	Spain	Beef	277	Quantitative (PCA, ANOVA)	Locally produced	-	Age, Environmental concern, Education, Knowledge, Origin
105	Schmitt et al. (2017)	N/A	Cheese, ham, bread, wine	N/A	Qualitative	Locally produced food	-	Locality, Origin, ethical concern, environmental concern
106	Stranieri et al. (2017)	Italy	Vegetables	550	Quantitative (CFA, SEM)	Environmentally friendly methods	-	Knowledge, Age, Gender, Organic consumption
107	Lazzarini et al. (2017)	Sweeden	Peppers, apples, coffee, peppermint tea, cane sugar	305	Quantitative (Factor analysis, ANOVA, LCA)	Eco-label, Locally produced, organic products	-	Package, Sustainability concern
108	Wakamatsu et al. (2017)	Japan	Seafood	159	Quantitative (WTP)	Eco-label, Organic products	-	Price, Age, Environmental concern
109	D'Amico et al. (2016)	Italy	Wine	201	Quantitative (WTP)	Organic products, PDO, PGI	-	Originality, Quality, Environmental concern, Knowledge
110	Mancuso et al. (2016)	Italy	Fish	277	Quantitative (Factor analysis,	Sustainable feed, Insects	-	Locality, Origin, Income, Gender, Age, Education, Family size, Purchasing frequency

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Table 3 (continued)

N	Article	Country	Product	N of Consumers	Study design	Practice	Agroecology term	Factors
111	Giampietri et al. (2016)	Italy	Apples	503	Regression analysis) Quantitative (WTP)	Organic food, Sustainable food	-	Organic, Price, Locality, Origin, Environmental concern
112	Fusi et al. (2016)	Italy	Pasta	-	Quantitative (LCA)	Water use reduction	-	N/A
113	van Herpen et al. (2016)	Netherlands	Organic fruits and vegetables	150	Quantitative (ANOVA)	Organic packaging	-	Packaging
114	Dahlin et al. (2016)	Germany	N/A	504	Quantitative	Green fertilizers	-	Label, Nutritional value, Price, Brand name, Fertilizer type
115	Voinea et al. (2016)	Romania	Cheese, Fish, Meat	N/A	Quantitative (EFA)	Environmentally friendly food	-	Nutritional value, Healthy food, Environmental concern
116	Nykytiuk (2016)	Ukraine	Aromatic plants	-	Qualitative (Comparative analysis)	Ecologically safe production	-	N/A
117	da Costa et al. (2016)	Portugal	Fruits and vegetables	725	Quantitative (EFA, ANOVA)	Pesticide reduction	-	Origin, Certification, Production protocols, Sustainable practices, Water pollution, Age, Income, Environmental concern
118	Migliore et al. (2015)	Italy	Biological products	270	Qualitative	Organic products	-	Locality, Organic production, Income
119	Hussein et al. (2015)	United Kingdom	Peas	-	Qualitative	Intrinsic cultivation	-	Quality, Environment, Flavor, Texture
120	Cafarelli et al. (2015)	Italy	Beef	215	Quantitative (WTP, ANOVA)	Alternative production methods	-	Origin, Price, Environmental concern
121	Behe et al. (2013)	USA, Canada	Vegetables, Fruits	2511	Quantitative (Cluster analysis)	Local production, Sustainable farming	-	Plant type, Age, Income, Education, Price, Production practice, Origin
122	Silva et al. (2020)	USA	Sustainable food	338	Quantitative (WTP)	Eco-label, Organic food, locally produced food	-	Nutritional value, Price, Appearance, Sustainability concern, Locality

Data availability

Data will be made available on request.

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