



## Benefit perceptions and their influence on the willingness to join community supported agriculture (CSA)

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### ABSTRACT

In this study, we focus on non-members' benefit perception of Community Supported Agriculture (CSA) and their willingness to join. We look into how information impacts the perception of CSA benefits, their relevance, and how these benefits and other factors such as trust levels, subjective knowledge, sustainable food shopping behaviour, political orientation and socio-demographics, influence the willingness to join. We conducted an online between-subject experiment. Respondents (N = 754) were divided in six groups, five groups were exposed to one benefit of CSA (i.e., either to the nutritional, sustainability, solidarity, transparency or community benefit) each, with the sixth group being the control group. Our experiment revealed that regardless of the information given, farmers were perceived to benefit the most from CSA, followed by society and lastly by the individual. However, all participants ranked individual benefits and environmental sustainability as most important for them, followed by solidarity with farmers, transparency and community aspects. Moreover, the results show that the more beneficial CSAs are seen, the higher the willingness to join. While information on benefits such as solidarity with farmers, nutritional quality and community are effective in reaching young, educated and often female members, nutritional benefits are addressing environmentally conscious and conservative consumers. Overall, information on nutrition and environmental sustainability led to the highest willingness to join. By communicating primarily about the nutritional benefits and environmental sustainability of CSAs, and not only about altruistic benefits, a wider spread and integration of CSA could be achieved, ultimately fostering a sustainable food production and consumption mindset.

### 1. Introduction

In recent years, food systems have been confronted by a multitude of challenges, such as climate change, globalisation, price volatility and food safety concerns. Addressing these problems, alternative food systems have subsequently become more and more popular. Next to home vegetable gardening or farmers' markets, community supported agriculture (CSA) has emerged as a promising collaborative approach between farmers and consumers (Volz et al., 2016; Zoll et al., 2018). While farmers are paid in advance through yearly membership costs, members of a CSA get a regular delivery of local, seasonal and often organic vegetables for their financial contribution (Schmidt et al., 2025; Volz et al., 2016). In addition, both parties share the risk of the harvest. In most CSAs, members additionally work a specific number of hours per year, either on the field, in the delivery or the administration. CSA organisations vary in their structure, with some of them being farming

enterprises led by a professional farmer and others being citizen-led initiatives employing vegetable gardeners. Among other benefits, CSAs build relationships between farmers and consumers in terms of trust, price stability and quality control. CSAs can hence foster likeminded communities (Sharp et al., 2002; Spanier, 2025), while ensuring an environmentally-friendly production and establishing alternative economic approaches, for example through short value chains (Bazzani and Canavari, 2013; Brehm and Eisenhauer, 2008; Wells et al., 1999). Overall, it promotes ecological, social and economic sustainability, thus creating resilient and climate friendly food systems (Egli et al., 2023; Paul, 2019; Tay et al., 2024).

Despite these multifaceted benefits, CSAs have been established mainly as a niche or milieu phenomenon as they attract members from similar political (i.e., mostly left-leaning) or economic (i.e., mostly high-income earners) backgrounds (Egli et al., 2023), and consequently their widespread adoption is still not achieved. Understanding public

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perceptions of CSA and what influences non-members' willingness to join CSA is crucial for the further development and promotion of CSAs in general, and for making them more accessible and inclusive towards other social groups.

It is known that there is a lack of public knowledge of the concept of CSAs (Diekmann and Theuvsen, 2019). A question arises about how people would react to CSA if they are familiar with its benefits. Literature generally shows that consumer behaviour and perception can be positively influenced through different types of information regarding the benefits of food products. For instance, food labels on nutritional quality and characteristics influence consumers to switch to a healthier diet (Drichoutis et al., 2006; Grunert and Wills, 2007; Grunert et al., 2010), while information on the sustainability of a product leads to an increase in sales of that product amongst interested consumers (Majer et al., 2022; Meise et al., 2014; O'Rourke and Ringer, 2016). Thus, it is plausible that information on CSA benefits, such as access to healthy produce (Haack et al., 2020), support for local farmers (Samoggia et al., 2019) and contributing to environmental sustainability (Bazzani and Canavari, 2013), could have a similar impact. While the motivational influence of these benefits on active CSA members is established (Brehm and Eisenhauer, 2008; Fiedler and Madsen, 2015; Hvitsand, 2016; Zoll et al., 2018), their impact on non-members' willingness to join has been rarely discussed (Diekmann and Theuvsen, 2019; Thoma et al., 2023). There is a lack of understanding of how informational inputs on CSA benefits influences non-members' benefit perceptions of CSA and subsequently their willingness to join.

The willingness to join a CSA is driven by various aspects, including prior knowledge of the concept, as well as socio-demographic and psychological factors. Prior knowledge of CSA could shape preconceptions of the concept and its benefits, either in a positive or a negative direction (Diekmann and Theuvsen, 2019). Socio-demographic factors, such as age, gender or the political orientation could impact food choices and engagement in alternative food networks through creating different needs and interests (Brehm and Eisenhauer, 2008; Diekmann and Theuvsen, 2022; Galt et al., 2016; Vassalos et al., 2017). Psychological factors, for example the trust in farmers and food systems, could also be relevant for people's perceptions and subsequently their decisions to join a CSA. (Bearth and Siegrist, 2016; Connor and Siegrist, 2010; Conroy and Lang, 2021; Cook et al., 2023; Fiedler and Madsen, 2015; Zoll et al., 2023).

Therefore, we aim to examine the benefits perceptions of non-members regarding CSA by providing them with information on the benefits of CSA. We consider different types of benefits on the individual, farmer and social level. We also determine what influences their willingness to join CSA. The results of this study can help determine the most relevant benefits for people to join CSA. Overall, it provides actionable insights to ensure the spread and integration of CSA in societies and ultimately foster a sustainable food production and consumption mindset and ensure the continuity of CSAs.

## 2. Background and aims

### 2.1. Benefit perceptions

The benefit perception construct is defined as one's belief that a positive outcome will occur due to a specific behaviour (Leung, 2013). Perceived benefit is a key psychological factor that can be used to explain one's motives to engage in an activity or accept a technology or innovation (Bearth and Siegrist, 2016; Frewer et al., 2011; Gupta et al., 2012; Siegrist, 2008). The more beneficial an innovation is perceived, the more accepted that innovation will be. However, the role of benefit perceptions in peoples' judgements and decision-making is controversial. Bearth and Siegrist (2016) showed in a meta study on public acceptance of food technologies that while benefit perceptions can have a significant influence on the acceptance, their impact is complex and varies widely. Next to differences due to varying methodologies, or

different food technologies, the authors link socio-demographic and cultural differences, as well as different food related legislation to mediating and moderating effects on the relationship between benefit perception and acceptance. In addition, they noted that risk and benefit perceptions are not always sufficiently reflected upon by survey participants, which often are strongly influenced by affective reactions towards the food technology. Overall, the concept of benefit perceptions seems to be mostly employed to understand public appraisals of food technologies and hazards. In the willingness of non-members to join food production organisations such as CSA, it has not been employed yet.

Overall, literature on CSAs, highlights the numerous environmental, economic and social benefits of CSA, which are experienced by members of CSAs and act as motivators for their continuous membership (Degens and Lapschies, 2023; Forbes and Harmon, 2008; Galt et al., 2016; Harmon, 2014; Lass et al., 2003; Ostrom, 2007). More specifically, CSAs promote farming practices (e.g., low pesticides and mechanisation use) which are valued by members for their environment-friendliness (Egli et al., 2023; Medici et al., 2021; Volz et al., 2016). Additionally, CSA establishes short value chains between producers and consumers (Bazzani and Canavari, 2013), ensuring that members support (small-scale) farmers (Fiedler and Madsen, 2015; Paul, 2019; Samoggia et al., 2019) and profit from regular access to fresh, seasonal and organic produce (Haack et al., 2020), which are main motivators in CSA membership (Brehm and Eisenhauer, 2008; Kirby et al., 2021; Zoll et al., 2018). CSAs also allows for greater trust in farmers and transparency in production processes (Fiedler and Madsen, 2015; Zoll et al., 2023). It fosters a sense of community among members and provides opportunities for socialisation, which are well-documented motivators (Hvitsand, 2016; Kirby et al., 2021).

Members' perceptions of CSA differ greatly from that of non-members as for the former, their perceptions are based on experiences. Despite its importance in ensuring the growth and acceptance of CSA within communities, little is known on how non-members perceive CSA. Few studies exist which examined non-members benefit perceptions and its impact on their support for or willingness to join a CSA. More specifically, Diekmann and Theuvsen (2019) looked into benefits perceptions among other factors and their influence on non-members interest in CSA in Germany. They looked at the expected benefits of contributing to sustainability, achieving a healthier lifestyle and transparency in the food production if one joins CSA. These benefits focused on a combination of individualistic and sustainability aspects, and the authors combined them in one scale as "expected performances" of being involved in a CSA. Surprisingly, their results reveal that non-members do not necessarily believe in these benefits attributed to CSA and rated them negatively, which in turn had a negative impact on the willingness to join CSA. Thoma et al. (2023) replicated the study in other parts in Germany and had similar findings. A comparable study in Japan found out what type of consumer is most interested in CSAs. While they could show that food education and learning opportunities, as well as contributing to environmental and societal issues were the main drivers for CSA interest, they also recognised that the concept of CSAs in general is not well known enough (Takagi et al., 2025).

These studies shed light onto the importance of the expected benefits of CSA for individuals' interest in CSA. However, they mainly focus on the personal benefits expected or desired by the individual from joining CSA. They did not look into the non-members' perception of benefits of CSA more holistically beyond the personal level such as the benefits for farmers and society. It is unclear how peoples' perceptions of the benefits of CSA would differ if the benefits were for the individual (i.e., member), the farmer or for the society. It is plausible that non-members value these benefits differently and thus they have different impact on non-members willingness to join CSA. The studies also do not distinguish between the different benefits (transparency, health, sustainability) as they are combined into one scale. Therefore, the impacts of these benefits individually could not be assessed. It is worthwhile comparing

non-members benefit perceptions of different CSA related aspects impacting the individual, the farmer and society in general. This comparison could allow determining the most important benefits of CSA for non-members to be willing to join CSA.

## 2.2. Knowledge and information provision

Research shows that non-members are not familiar with the concept of CSA and its benefits (Diekmann and Theuvsen, 2019; Rahmatika et al., 2024; Takagi et al., 2025). However, when provided with information about the CSA concept, non-members interest in CSA increased (Diekmann and Theuvsen, 2019). This potential positive role of information provision is congruent with that of the numerous studies which have investigated how generally the provision of information influences consumer decisions and behaviours (Barreiro-Hurlé et al., 2010; Dri-choutis et al., 2006; Grunert and Wills, 2007; Grunert et al., 2010; Ippolito, 1999; Van Der Merwe et al., 2010). For instance, Barreiro-Hurlé et al. (2010) found that nutrition labels and health claims on packaging guide consumers, who are especially well-informed, to more healthy food choices while grocery shopping. Other research on sustainable food choices and shopping behaviour has shown that informed consumer are more likely to make decisions that align with personal, sustainable and ethical values such as food quality and health, regionality of food production and animal welfare (Ran et al., 2022). Arguably, providing similar information on the nutritional, health and sustainability benefits of joining a CSA could also have a positive impact on peoples' decisions and interest with CSA.

Nevertheless, the role of information provision is generally unclear. For example, in the context of public acceptance and evaluations of food-related innovations, knowledge provision can have a positive impact, no impact or even a negative one on peoples' choices and behaviours (Connor and Siegrist, 2010; Lee et al., 2016; Walten et al., 2021). It is thus important not to follow the knowledge deficit model (Hansen et al., 2003) and assume that providing information will definitely lead to behaviour change (i.e., joining a CSA). This model is inadequate as it fails to account for peoples' perceptions and opinions and focuses on their lack of knowledge as ignorance. What is more reliable regarding information provision is the type of information being shared with the people (Ou and Ho, 2024). The type of information provided should be relevant for people in order to even consider the information they are exposed to. In addition, there are differences in how information is received and processed. Regarding food choices for example, information about sustainability is of greater importance for highly educated consumers who are also willing to pay a premium (Aprile and Punzo, 2022).

Within the context of willingness to join CSA, which and how information impacts people's perception of CSA and its benefits is not researched. It is important to examine peoples' reactions to information on the different benefits of CSA and determine which CSA benefit is mostly relevant for their decisions to support and join CSA.

## 2.3. Psychological factors and socio-demographics

Knowledge and information on the benefits of CSA can be relevant but are not the sole factors that influences acceptance or support. Trust and the individual's attitudes towards the object are mentioned as important factors (Simis et al., 2016), which are also highlighted in the literature on the acceptance of food system innovation (Beath and Siegrist, 2016). When considering the willingness to join CSAs, trust could play an important role.

Trust is known to be employed by individuals when they do not possess enough knowledge or have time to assess the pros and cons of a service or object (Siegrist and Cvetkovich, 2000). They rely on their trust in individuals, organisations, labels and certificates to make their decisions (Conroy and Lang, 2021; Gupta et al., 2012; Wu et al., 2021). A higher trust in farmers can for example entail a higher acceptance of

agriculture-related innovations (Saleh et al., 2024). Arguably, trust can thus play a crucial role in the adoption of alternative food networks such as CSAs. Within this context, people' willingness to join CSA could be affected by their trust in farmers, especially since farmers are key actors in CSA. In fact, Zoll et al. (2023) further highlights the importance of trust in farmers as they found that active CSA members exhibit high trust in farmers and are likely to recommend their peers of joining CSA. The researchers also found that despite organic certification being an important shopping criterion for CSA members, they would not trust such labels to inform them fully of what they need to know. Thus, trust in food labels could also be relevant for non-members' decision in joining CSA especially since food labels are shown to impact consumer food purchasing behaviour and choices (Carlsson et al., 2022; Conroy and Lang, 2021; Cook et al., 2023). Similarly, those who do not trust food labels could desire different sustainable and transparent food sources, and therefore could be more interested in joining CSA.

Furthermore, political orientation is an important factor as the underlying structure of CSA tend to incorporate left-leaning tendencies and a desire for a democratic and sustainable food system (Diekmann and Theuvsen, 2022). Within CSA, members share these political aspirations and prioritize organic and local food production systems (Degens and Lapschieß, 2023; Pole and Gray, 2013; Sharp et al., 2002). They rarely diverge in their political views, which possibly makes political orientation a prerequisite to joining CSA. Other studies highlight the characteristics of the members of CSA in terms of their socio-demographics, including age, education, employment status and having children (Brehm and Eisenhauer, 2008; Galt et al., 2016; Hvitsand, 2016; Pole and Gray, 2013; Vassalos et al., 2017). Predominantly in Switzerland, CSA members are well-educated and employed as CSA is considered rather expensive for low-income earners (Forbes and Harmon, 2008; Galt et al., 2016). Younger individuals and those with higher education levels may be more open to joining CSAs due to greater environmental awareness and health consciousness (Vassalos et al., 2017). Moreover, those with stable employment might have the financial and time resources necessary to commit to a CSA. Rahmatika et al. (2024) have shown in their study on potential CSA members in Indonesia that well educated, young, urban adults with a high income are most likely to show interest in the concept. Therefore, it is worthwhile examining the role of these sociodemographic and lifestyle factors in the willingness of non-members to join CSAs in Switzerland which has a prosperous economy. Understanding which and how these characteristics influence non-members willingness to join CSA can inform communication efforts on how to promote and facilitate participation in CSA.

## 2.4. Aims and research questions

The overall aim of this study is to determine the benefit perceptions and willingness to join CSA among non-members in the German-speaking part of Switzerland. Our first objective is to compare non-members perceptions of different CSA benefits for the individual, farmers and society, in relation to different information on benefits provided to the participants. Our second objective is to assess the role of benefits perceptions, subjective knowledge, trust in farmers, trust in food labels, shopping behaviour and other sociodemographic characteristics on non-members willingness to join. Specifically, this study addresses the following research questions.

1. How does information provision regarding the different benefits of CSA impact non-members' benefit perceptions of CSA for individuals, farmers and society?
2. Which benefits of CSAs are most important for non-members?
3. How do factors, including perceived benefits, subjective knowledge, trust in farmers and in food labels, sustainable food shopping behaviour, and sociodemographic variables influence the willingness to join (WTJ)?

By addressing these questions, the study aims to deepen the understanding of non-members' perceptions of CSAs and to identify key drivers that could ensure their participation in CSA initiatives.

### 3. Methods

#### 3.1. Survey experiment design

In order to investigate the impact of information related to the benefits of CSA on public perceptions and their willingness to join, our study employed an between-subject experimental design (Charness et al., 2012). At the start of the experiment, all respondents consented to the questionnaire and were asked if they are already engaged in a CSA.

To ensure a balanced distribution regarding age and gender of the respondents, quota sampling was used. The respondents were then randomly assigned to one of six groups: five experimental groups and one control group. All five experimental groups received an informational text on the concept of CSAs. This text was kept short and descriptive of the most important and common aspects of a CSA, without emphasis on price ranges and harvest fluctuations, which change from one organisation to another. Subsequently, each group read a concise information on one specific benefit of CSA (cf. Table 1). The benefits included the nutritional quality of CSA produced food (*Nutrition*), the environmental sustainability of the practice (*Sustainability*), the transparent production process (*Transparency*), the solidarity with a farmer (*Solidarity*) and becoming part of a community (*Community*). The control group (*Control*) was exposed to a non-CSA related text of similar length and complexity to avoid any bias in the following measures. Each group was only given one of the five benefits or the control text; they were not exposed to the other benefits until the end of the questionnaire. After the participants read the informational texts (cf. Table 1), they had to

**Table 1**  
General Information about the concept of CSA and specific benefits by groups.

To all participants	Informational text about CSA concept
	In Community Supported Agriculture (CSA) there are two key actors: consumers and farming professionals. While farmers, are paid in advance, members of a CSA get a regular delivery of vegetables for their financial contribution. In most CSAs, members additionally put in a specific amount of work hours (approximately 10–20 h) per year, either on the field, the delivery or the administration.
Groups	Benefit information provided
<b>Nutrition</b>	CSA food products are typically of different varieties and are harvested within days or hours of delivery. Therefore, the produce has a rich and diverse nutritional quality and stays fresh for a long period of time.
<b>Sustainability</b>	CSAs produce organic, seasonal and local vegetables. This actively contributes to a sustainable food production system, by lowering CO2 emissions, conserving soil quality and fostering biodiversity.
<b>Transparency</b>	CSA members can directly ask farmers about their growing practices and be personally involved in the production process and decision-making. Members therefore have a direct overview where their food is coming from and how it is produced.
<b>Solidarity</b>	CSAs ensure local public support for their farmers, which helps farmers have good overall livelihood. The CSA ensures them a stable income stream regardless of the harvest, as the members pay upfront at the beginning of the growing season.
<b>Community</b>	CSAs connect likeminded consumers and allow them to participate in on-farm events within a CSA's "community". These community events vary from sharing meals, to concerts or cultural happenings.
<b>Control</b>	Agroscope is the Swiss Confederation Centre of Excellence for Agricultural Research and is affiliated with the Federal Office for Agriculture which is the subordinate to the Federal Department of Economic Affairs, Education and Research. Agroscope researches the entire value chain of the agriculture and food sector from production through processing to consumption.

answer a simple control question ensuring that they read and understood the texts. All participants then were asked to indicate their interest to join a CSA, their affective response to the concept of CSAs, and how beneficial they perceive CSAs for themselves, participating farmers and society in general.

Respondents then answered questions on the sustainability of their shopping behaviours and their trust in farmers. Additionally, subjective existing knowledge on gardening and vegetable cultivation was measured, as well as previous experience with private food production. After a short section on their sociodemographic (age, gender, education, employment, number of children) and political orientation, all participants read all the benefit texts and were tasked to rank the five benefits according to their perceived importance.

#### 3.2. Data sampling and participants

The data collection was carried out by a professional consumer panel provider in September 2023. From 1580 initial respondents, 303 were filtered out from the survey due to their stating to be active CSA members. Additionally, 231 did not finish the survey or were screened out through a quota. In total, there were 900 respondents from the German-speaking parts of Switzerland. 146 were removed from the analysis due to their participation duration being too short which could bias the results. The final number of participants was  $N = 754$ , separated into the six groups; "Nutrition"  $n = 118$ , "Sustainability"  $n = 125$ , "Transparency"  $n = 128$ , "Solidarity"  $n = 120$ , "Community"  $n = 129$  and the "Control" group  $n = 128$ . The sample consisted of 51.2% females, and exhibited a mean age of  $M = 46$  ( $SD = 16$ ). The concept of CSAs was rather unknown to the sample, with only 19.8% being somewhat familiar and 80.2% were not familiar at all with the concept of CSA. The respondents' educational background ranged from low (6%), medium (47.7%) to high (45.6%). While 69% were employed or self-employed, 18.4% were retired, and 11.1% in some form of vocational training, studying or in school. 72.3% of the sample declared to have no children under the age of 18 in their household. While 69.6% of the sample were either employed or self-employed, 30.4% were retired, studying, in school or unemployed. The political orientation of the sample was evenly balanced and exhibited a mean of  $M = 50$  ( $SD = 22$ ) on a scale from 0 (completely left) to 100 (completely right). Using a one-way ANOVA and Pearson Chi Squared Tests, we determined that there are no significant differences between the six groups group regarding these sociodemographic measurements (cf. Table 2).

#### 3.3. Questionnaire and measurement scales

To capture the variances of the respondents' views, we used 0–100 slider scales as well as 5-point Likert scales. Likert-scales were employed

**Table 2**  
Socio-demographics of the sample.

	Measurement	Total (N = 754)	Difference between Groups: ANOVA/Chi Squared
<i>Age (years)</i>	<i>Mean (SD)</i>	46.4 (16.3)	$F(5, 748) = 0.64; p = .668$
<i>Gender (%)</i>	<i>Male</i>	48.8%	$\chi^2(5) = 7.80, p = .167$
	<i>Female</i>	51.2%	
<i>Education (%)</i>	<i>Low</i>	6%	$\chi^2(10) = 11.84, p = .296$
	<i>Mid</i>	47.7%	
	<i>High</i>	45.6%	
<i>Children</i>	<i>None</i>	72.3%	$\chi^2(5) = 3.48, p = .626$
	<i>One or more</i>	27.6%	
<i>Employment</i>	<i>(Self-) Employed</i>	69.6%	$\chi^2(5) = 3.34, p = .648$
	<i>Retired, Study, School or unemployed</i>	30.4%	
<i>Political Orientation</i>	<i>Mean (SD)</i>	50.25 (21.67)	



to measure agreement assessments and were based on existing scales. Slider scales were used to capture a more nuanced differentiation in participants' responses to CSA specific questions.

First, we measured the interest to join on a slider scale ranging from 0 (not likely to join at all) to 100 (completely likely to join). We also measured how participants felt regarding the concept of CSAs a scale ranging from 0 (completely negative) to 100 (completely positive). Due to the high and significant correlations found ( $r > 0.5$ ) between the two variables, we built the Willingness to Join (WTJ) scale (cf. Appendices Table A1) (Cronbach's alpha,  $\alpha > .6$ ).

We also measured respondents perceived benefits of CSAs for the individual, for farmers and for society on a slider scale ranging from 0 (not beneficial at all) to 100 (completely beneficial). The overall benefit perception scale was built by taking the mean of these three benefit perceptions. The scale exhibited a good Cronbach's alpha ( $\alpha > .7$ ) for each group (cf. Appendices Table A2).

Subsequently, participants were asked to give their agreement to general statements concerning their everyday choice of produce whilst grocery shopping in terms of sustainability, regionality, seasonality and organic quality on a 5-point Likert scale from 1 = do not agree at all to 5 = completely agree. These six items were used to form the sustainable food shopping behaviour scale, based on Blanke et al. (2022) (cf. Table 3). A principal component analysis (PCA) revealed that the second item on the availability of sustainable food had a low correlation with the overall scale ( $r < 0.3$ ), and was therefore dropped. The final components exhibited high item-total correlations (cf. Table 3), demonstrating a strong relationship between the items and the underlying construct. The scale exhibited a good Cronbach's alpha ( $\alpha = .82$ ).

Participants then indicated their trust in farmers on a slider scale ranging from 0 (not trustworthy at all) to 100 (completely trustworthy). In addition, we measured participants' trust towards food labels through three agreement items focused on trust in description on labels, in certifications and in origin declaration on a five-point Likert scale ranging from 1 = do not agree at all to 5 = completely agree. Through a PCA, a one factor solution was found for this scale (cf. Table 4), which in turn exhibited a good Cronbach's alpha of  $\alpha = .78$ .

Lastly, we measured participants' subjective knowledge with four items focused on their understanding of gardening, specifically vegetable gardening, trust in their own knowledge and level of knowledge compared to others, based on the scale used by Rombach et al. (2021). Participants were asked to indicate their agreement with the four items on a 5-point Likert scale with 1 = do not agree at all and 5 = completely agree. PCA revealed a one-factor solution to form the subjective knowledge scale. All four items exhibited good item-total correlations and an excellent Cronbach's alpha of  $\alpha = .87$  (cf. Table 4).

### 3.4. Analysis

In order to analyse the informational effect on perceptions between the groups, we employed a two-way mixed analysis of variances ANOVA with one repeated-measure factor (the three perceived benefits) and one between-group factor (the six groups). A Bonferroni post-hoc tests was

**Table 3**  
Means, Standard Deviation and Item Total Correlation: Sustainable food shopping behaviour scale.

Item	Mean (SD)	Item-Total Correlation
<b>Sustainable Food Shopping Behaviour Scale (<math>\alpha = .82</math>)</b>	<b>3.84 (0.71)</b>	
Buying sustainable food items is reasonable	4.38 (0.78)	0.72
It is important to me that food I usually buy is sustainable	3.65 (0.92)	0.84
It is important to me to buy local food	4.03 (0.90)	0.80
It is important to me to buy seasonal food	4.07 (0.87)	0.71
It is important to me to buy organic food	3.07 (1.17)	0.75

**Table 4**  
Means, Standard Deviation and Item Total Correlation for the trust in food labels and subjective knowledge scales.

Item	Mean (SD)	Item-Total Correlation
<b>Trust Food Label Scale (<math>\alpha = .78</math>)</b>	<b>3.45 (0.77)</b>	
You can trust the descriptions on food labels	3.37 (0.91)	0.82
You can trust Certifications, such as Bio-Suisse or Demeter	3.51 (0.95)	0.81
You can trust the declaration of origin of food	3.48 (0.92)	0.86
<b>Subjective Knowledge Scale (<math>\alpha = .87</math>)</b>	<b>2.29 (0.94)</b>	
I understand a lot of vegetable gardening	2.40 (1.05)	<b>0.87</b>
I trust in my knowledge of vegetable gardening	2.67 (1.06)	<b>0.82</b>
Among friends I am the expert in gardening	2.00 (1.11)	<b>0.89</b>
I have a higher knowledge of gardening than others	2.10 (1.12)	<b>0.87</b>

conducted to analyse the differences between the groups. We used the Kruskal-Wallis and a subsequent Dunn-Bonferroni post-hoc test to examine if there are differences in the rankings of the benefits between the groups.

A one-way ANOVA, with a Games-Howell post-hoc test was used to evaluate differences between the groups in the dependent variable: the willingness to join CSAs. Lastly, we used multiple linear ordinary least squares regression to determine which factors influence the WTJ for each group. The regression model included the following factors: overall benefit perception, trust in farmers, trust in food labels, sustainable food shopping behaviour, previous experience, subjective knowledge, age, gender, education, having children, employment status and political orientation. The overall benefit perception scale was built by taking the mean of the three benefit perceptions. This was done due to the high correlations between the three benefit perceptions and to avoid multicollinearity issues (cf. Appendices Table A3). Prior to this, we ran Pearson's correlation analysis to examine the relationship between our independent variables and to identify potential multicollinearity issues. All data cleaning, visualisation and analysis has been done using SPSS version 28 (IBM Corp, 2021).

## 4. Results

### 4.1. Perceived benefits of CSAs for individuals, Farmers and society

A two-way repeated measures ANOVA with a Huynh-Feldt adjustment showed that there is a significant difference within the three benefit perceptions ( $F(1.83, 1367.98) = 313.88, p < .001, \eta_p^2 = 0.27$ ). Farmer benefits was significantly perceived as the highest ( $M = 69.08, SD = 21.00$ ) followed by social benefits ( $M = 61.86, SD = 21.64$ ) and lastly individual benefits ( $M = 51.01, SD = 22.08$ ) (cf. Fig. 1 and Table 5). The mean benefit perception was also significantly different between the six groups ( $F(5, 748) = 7.67, p < .001, \eta_p^2 = 0.05$ ). The "Nutrition" group ( $M = 65.98, SD = 18.99$ ), "Solidarity" group ( $M = 63.14, SD = 16.68$ ), "Sustainability" group ( $M = 62.73, SD = 17.66$ ) and "Community" group ( $M = 60.43, SD = 17.78$ ) perceived significantly higher benefits for CSA than the "Control" group ( $M = 53.30, SD = 16.49$ ). Whereas the "Transparency" group ( $M = 59.15, SD = 18.85$ ) had no significant difference in benefit perception to the "Control" group, but exhibited only a significantly lower perceptions of benefits of the CSA than the "Nutrition" group.

There is a significant interaction effect between the groups and the individual benefits ( $F(5,748) = 2.37, p = .038, \eta_p^2 = .02$ ), social benefits ( $F(5,748) = 7.06, p < .001, \eta_p^2 = 0.05$ ) and farmer benefits perception ( $F(5,748) = 10.93, p < .001, \eta_p^2 = 0.07$ ). Pairwise comparison showed that the experimental groups ("Nutrition", "Sustainability", "Transparency", "Solidarity", "Community") rated the social benefits and farmer benefits

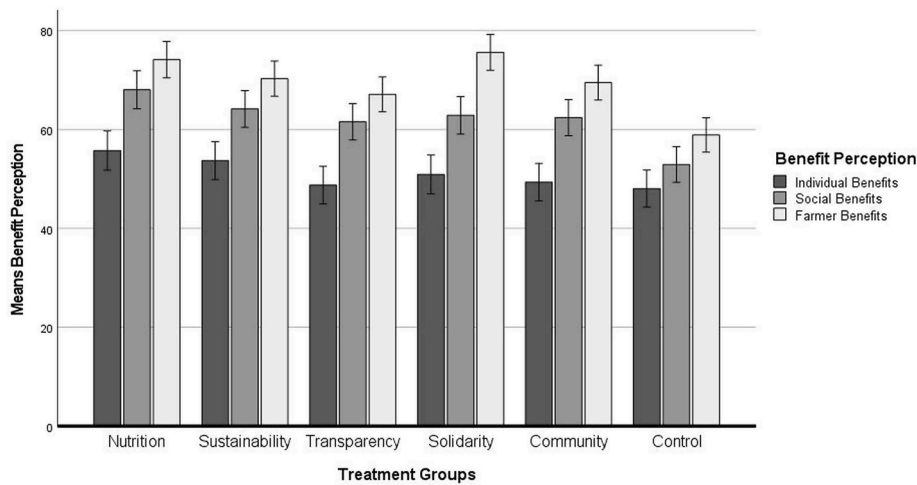


Fig. 1. Benefit Perceptions for the individual, society and farmers by the six groups.

Table 5

Benefit Perceptions for the individual, farmer and society for the groups with the means (M) and standard deviations (SD).

	Groups					
	Nutrition M (SD)	Sustainability M (SD)	Transparency M (SD)	Solidarity M (SD)	Community M (SD)	Control M (SD)
Individual Benefit	55.75 (23.97) <sup>a</sup>	53.72 (23.53) <sup>a</sup>	48.76 (21.82) <sup>a</sup>	50.92 (21.34) <sup>a</sup>	49.36 (22.62) <sup>a</sup>	48.06 (18.42) <sup>a</sup>
Social Benefit	68.05 (22.18) <sup>a</sup>	64.17 (22.04) <sup>a</sup>	61.57 (21.80) <sup>a</sup>	62.88 (21.73) <sup>a</sup>	62.43 (21.48) <sup>a</sup>	52.93 (17.98) <sup>b</sup>
Farmer Benefit	74.14 (20.28) <sup>a,c</sup>	70.30 (20.69) <sup>a,c</sup>	67.13 (22.11) <sup>a</sup>	75.62 (20.20) <sup>a</sup>	69.50 (19.43) <sup>a,c</sup>	58.89 (19.30) <sup>b</sup>

Means in a row with the same subscripts are not significantly different from each other.

significantly higher than the "Control" group (cf. Table 5). In addition, the "Solidarity" group perceived higher benefits for farmers than the "Transparency" group. Individual benefits perceptions did not significantly differ between the groups.

#### 4.2. Ranking of CSA benefits across informational groups

In order to assess the importance of the five different CSA benefits focused on nutrition, sustainability, transparency, solidarity and community, participants ranked benefits in order of importance. With 1 indicating the most important and 5 the least important benefit, lower mean values reflect higher perceived importance. Accordingly, respondents overall ranked the benefit of sustainability (M = 2.01, SD = 1.12) as the most important one, followed by that of nutrition (M = 2.6, SD = 1.35), solidarity (M = 2.9, SD = 1.17), transparency (M = 3.6, SD = 1.19) and community (M = 4.0, SD = 1.27).

To examine if there were potential difference in the benefit rankings across all six groups a Kruskal-Wallis H test was conducted. The test revealed no significant differences between the groups on the rankings of the importance of nutrition (H (5, n = 754) = 5.43, p = .366), sustainability (H (5, n = 754) = 6.74, p = .240), solidarity (H (5, n = 754) = 6.10, p = .297) and transparency (H (5, n = 754) = 2.51, p = .774) benefits. As for the benefit focused on community, the difference between the groups on its ranking was significant (H (5, n = 754) = 16.83, p = .005). A Dunn-Bonferroni-Post-hoc test revealed that the differences were between the "Control" Group and the "Nutrition" Group, (z = 3.31, p < .001), as well as between the "Control" Group and the "Community" Group (z = 3.46, p < .001). Both experimental groups ranked the benefit related to community significantly lower than the "Control" group. However, this community-related benefit remained consistently ranked the least important benefit across all the groups.

#### 4.3. Informational effects on willingness to join

We investigated potential differences in the dependent variable across the experimental and control groups using an ANOVA. A Welch's Test, accounting for violations in the assumption of homogeneity of variances showed a significant difference between the six groups (Welch's F (5, 347.53) = 4.025, p = .001). A subsequent Games-Howell post-hoc test, further revealed that the "Nutrition" and the "Sustainability" groups significantly differed in the WTJ from the "Control" group, but not from the other groups (cf. Table 6).

#### 4.4. Factors influencing willingness to join

We ran Pearson's correlations with the dependent variable WTJ and the following independent variables: Overall benefit perception, trust in farmer, trust in food labels, sustainable food shopping behaviour, subjective knowledge (cf. Appendices Tables A4-9). The overall benefit perception and food shopping behaviour scales exhibited significant positive and high correlations with the WTJ in every group. The trust in farmer scale also showed a weaker yet still significant positive correlation with WTJ and the overall benefit perception, except for the "Solidarity" group, where there was no significance between WTJ and trust in farmers. Additionally, the trust in farmer scale had a significant positive correlation with the trust in food labels scale in all groups, except for "Nutrition" where there was no significant correlation. There was no significant correlation between subjective knowledge and WTJ in the "Nutrition", "Transparency" and "Solidarity" group, but a significant positive relationship within the "Sustainability", "Community" and especially the "Control" group.

Table 7 shows the results of the six multiple linear regression models, where the standardised regression coefficients, p-values and confidence intervals can be found. The models explain 66% (Nutrition), 64% (Sustainability), 70% (Transparency), 66% (Solidarity), 65% (Community) and 55% (Control) of the variance in the willingness to join a CSA.

**Table 6**  
Mean and standard deviation for willingness to join.

Groups	Overall	Nutrition	Sustainability	Transparency	Solidarity	Community	Control
Mean (SD)	52.77 (20.21)	56.81 (21.45)	55.95 (20.52)	51.84 (21.21)	52.50 (19.10)	52.70 (20.32)	47.27 (17.46)
WTJ							

**Table 7**  
Regression Analysis on the dependent variable willingness to join for the six groups.

Predictors	Groups											
	Nutrition (n = 118)		Sustainability (n = 125)		Transparency (n = 128)		Solidarity (n = 120)		Community (n = 129)		Control (n = 128)	
	(β)t	95% CI	(β)t	95% CI	(β)t	95% CI	(β)t	95% CI	(β)t	95% CI	(β)t	95% CI
(Constant)		-42.23, 1.90		-45.16, 3.74		-15.60, 29.05		-37.16, 6.46		-20.10, 24.00		-45.51, -4.14
Overall Benefit Perception	<b>0.73***</b>	<b>0.69, 0.97</b>	<b>0.71***</b>	<b>0.68, 0.97</b>	<b>0.81***</b>	<b>0.77, 1.06</b>	<b>0.73***</b>	<b>0.70, 0.98</b>	<b>0.72***</b>	<b>0.67, 0.97</b>	<b>0.63***</b>	<b>0.52, 0.82</b>
Trust Farmer	0.02	-0.10, 0.15	0.01	-0.11, 0.13	0.01	-0.12, 0.14	-0.06	-0.18, 0.06	0.07	-0.06, 0.21	0.03	-0.12, 0.18
Trust Foodlabels	0.03	-2.13, 3.95	0.03	-2.60, 4.63	-0.04	-4.22, 2.11	-0.06	-3.93, 1.34	0.03	-2.60, 4.09	-0.04	-4.43, 2.24
Shopping behaviour	<b>0.15*</b>	<b>0.61, 8.19</b>	0.13	-0.04, 7.60	0.03	-3.05, 4.57	<b>0.18**</b>	<b>1.42, 7.87</b>	0.06	-1.73, 5.48	<b>0.20**</b>	<b>1.44, 8.69</b>
Previous Experience	0.01	-4.78, 5.62	-0.11	-9.49, 0.87	-0.06	-7.19, 2.23	-0.02	-5.30, 3.87	-0.08	-8.21, 1.57	-0.02	-5.70, 4.22
Subjective knowledge	-0.01	-2.86, 2.33	0.11	-0.34, 5.02	0.04	-1.63, 3.58	-0.02	-2.47, 1.85	0.01	-2.50, 2.87	0.07	-1.36, 4.36
Age	<b>-0.12*</b>	<b>-0.32, -0.01</b>	-0.09	-0.29, 0.05	-0.08	-0.23, 0.04	<b>-0.14*</b>	<b>-0.33, -0.04</b>	<b>-0.13*</b>	<b>-0.30, -0.03</b>	0.09	-0.05, 0.24
Gender	-0.01	-5.10, 4.52	0.01	-4.06, 5.15	0.08	-1.07, 8.00	<b>-0.12*</b>	<b>-8.67, -0.12</b>	0.01	-4.14, 4.79	0.08	-1.79, 7.51
Education	0.02	-3.40, 4.57	0.09	-0.94, 7.62	-0.08	-6.28, 1.21	<b>0.14*</b>	<b>1.07, 8.48</b>	0.00	-3.17, 3.40	0.05	-2.30, 5.49
Children	-0.02	-6.14, 5.14	-0.05	-8.10, 3.46	0.05	-2.80, 7.39	0.04	-3.30, 6.37	-0.06	-7.66, 2.60	0.09	-1.64, 9.03
Employment	-0.01	-5.70, 0.27	0.02	-5.04, 6.69	0.02	-4.11, 5.86	<b>0.12*</b>	<b>0.09, 10.00</b>	<b>-0.11*</b>	<b>-10.17, -0.10</b>	0.05	-3.06, 6.97
Political Orientation	<b>0.18**</b>	<b>0.06, 0.27</b>	-0.02	-0.13, 0.10	-0.05	-0.17, 0.07	-0.02	-0.13, 0.09	0.05	-0.06, 0.15	0.07	-0.05, 0.17
Adjusted R Squared	0.68		0.64		0.70		0.67		0.66		0.54	
F	22.13***		19.10***		25.25***		21.06***		21.69***		13.63***	

\*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ .

Overall benefit perception: 0 = no benefit at all, 100 = completely beneficial.

Trust in farmers: 1 = no trust at all, 100 = completely trustworthy.

Trust in food labels: 1 = no trust at all, 5 = completely trustworthy.

Shopping behaviour: 1 = not sustainable, 5 = highly sustainable.

Previous experience: 0 = previous experience, 1 = no previous experience.

Subjective knowledge: 1 = no knowledge, 5 = high knowledge.

Gender: 0 = female, 1 = male.

Education: 1 = low, 2 = mid, 3 = high.

Children: 0 = no children, 1 = children in household.

Employment: 1 = employed, 2 = not employed (retired, studying or vocational school).

Political orientation: 0 = very left, 100 = very right.

The six regressions were statistically significant for “Nutrition” (F [10,107] = 23.81,  $p < .001$ ), “Sustainability” (F [10,114] = 23.26,  $p < .001$ ), “Transparency” (F [10,117] = 30.47,  $p < .001$ ), “Solidarity” (F [10,109] = 24.31,  $p < .001$ ), “Community” (F [10,118] = 24.76,  $p < .001$ ) and the “Control” groups (F [10,117] = 16.31,  $p < .001$ ).

Overall benefit perception had a significant positive relation to the WTJ in every model, with this relation being the strongest one. In addition, there were model specific differences in the regressions. For “Nutrition”, “Solidarity” and “Control” groups, a significant positive influence of sustainable food shopping behaviour on the dependent variable was found. Those participants who are more sustainable in their shopping behaviour exhibit a higher WTJ.

Age displayed a negative relationship with WTJ for “Nutrition”,

“Solidarity” and “Community” groups. The younger the participants, the higher their willingness to join. Similar effects were observed for the “Solidarity” group regarding gender and education, which had a significant relationship with the WTJ. Political orientation had a significant positive effect in the “Nutrition” group, the more conservative the respondents were, the higher their WTJ. While employment had a marginally significant positive influence on the dependent in the “Solidarity” group, it had a significant negative effect in the “Community” group. Previous experience or subjective knowledge did not have any significant impact on the WTJ, neither had the participants’ trust in farmers or in food labels. Children within the participants’ household did not lead to a significant change in the WTJ.

## 5. Discussion

This study investigated how information provision regarding the different benefits of CSA impact non-members' benefit perceptions of CSA for individuals, farmers and society and subsequently their willingness to join CSA. Our findings show that in general information provision on the benefits of CSA had a positive impact on the perceptions of overall benefits (Diekmann and Theuvsen, 2019). More specifically, the information provided on the individual, farmer-related and societal benefits of CSA seem to impact the perception of social and farmer-related benefits positively, but not the perception of benefits related to the individual itself. In addition, regardless of the particular benefit presented to participants, they perceived CSA to be most beneficial to farmers, followed by society and lastly for their own personal wellbeing.

Our results also indicate that non-members rate individual-focused (i.e., nutrition) and sustainability-focused benefits of CSA as most important benefits, followed by more social and altruistic benefits such as solidarity with farmers, transparency and lastly community. This importance is also depicted in the fact that benefits focused on the nutrition and sustainability aspects of CSA led to the highest willingness to join to CSA. However, there seem to be a mismatch between the participants' perception of the benefits of CSA and the importance of its benefits to them. While non-members perceive CSAs as mostly social, or farmer-orientated systems, they rated nutrition and sustainability benefits as the most important aspect in CSAs. Therefore, the general presentation of CSA as an alternative food system focused on solidarity with farmers, transparency and community (Hvitsand, 2016; Volz et al., 2016) overshadows the interest of potential new members, who strive to become more sustainable and get access to healthy and nutritious produce. These findings complement insights from Diekmann and Theuvsen (2019) who suggested that non-members do not perceive individual benefits of nutrition and sustainability as the prominent benefits of CSAs. This stands in contrast to the literature on benefits experienced by members, as those already involved in CSAs value and experience the benefits of sustainability and the nutritional quality of the produce as a main motivator for their engagement in CSA (Bazzani and Canavari, 2013; Brehm and Eisenhauer, 2008; Haack et al., 2020; Hvitsand, 2016). In addition, it differs partly from the findings of Vasallos et al. (2017), who found solidarity with farmers and the access to organic produce as the main motivators to join CSAs, as well as from Takagi et al. (2025), who characterise educational and activistic motivators as most prominent.

Furthermore, our results highlight that non-members willingness to join CSA could be influenced not only by the type of benefit perceived but also by different behavioural and sociodemographic factors. Although overall benefit perception had the strongest influence regardless of the type of benefit provided, differences between the six groups could be found in the other factors. The respondents, who received information on the nutritional and solidarity benefits, were more willing to join if they already had a sustainable shopping behaviour (i.e., through shopping for local, organic and sustainable food). This shows that non-members with an existing interest in sustainable food systems react well to information portraying CSA as a source for good quality food and an option to support local farmers. This is in line with the literature of CSA members, who exhibit a preference for organic, nutritious and sustainable produce (Rossi et al., 2017; Vasallos et al., 2017). In the "solidarity" group, highly educated and young females were even more willing to join a CSA. Within the "community" group, age plays a role portraying a young, environmental conscious and female potential membership, highly interested in solidarity with farmers and communal structures. These characteristics reinforce the existing demographic trends with age, gender, education and sustainability interest in CSA membership (Egli et al., 2023). In addition, we found that only for the "Nutrition" group, political orientation became an influential factor. This suggests that information on the nutritional benefits of CSAs

increases the WTJ among conservative participants, promoting greater inclusivity within the generally left-leaning CSA initiatives (DeLind and Ferguson, 1999; Egli et al., 2023). It is important to note that while mistrust in the food system is often a significant factor driving participation in alternative food networks (Gori and Castellini, 2023), our results indicate otherwise, since neither trust in farmers, nor trust in food labels had an influence on the WTJ in any of the six groups. This discrepancy may be attributed to Switzerland's high general trust towards, and positive perception of farmers and agriculture, coupled with stringent food quality standards (Mann, 2015).

The results of our research have significant implications for CSA initiatives, especially in Switzerland. The key issue lies in the discrepancy between how CSAs are perceived and what benefits potential members value most. While the public sees CSAs as primarily benefiting farmers and society, they rate sustainability and individual benefits as most important. However, information provision about the individual benefits did not significantly influence perceptions of individual benefits compared to the other groups. In order to attract more members, CSA initiatives must go beyond simply providing information about individual benefits through different informational channels (Thoma et al., 2023; Vasallos et al., 2017). They need to fundamentally shift the narrative and therefore the public perception, to highlight how CSAs can meet individual needs and interests. This involves framing CSA membership not just as a socially responsible choice but as one that directly benefits the individual's health and lifestyle including, but not limited to, nutrition and environmental sustainability benefits, leading to a higher WTJ. Targeted communication strategies can play a crucial role in this process as well (Takagi et al., 2025; Thoma et al., 2023). For instance, emphasizing nutritional benefits could attract a more diverse membership, including conservative individuals. Given the high trust in farmers and food quality in Switzerland, CSAs should leverage this trust by grounding their practices within Swiss agriculture, emphasizing the quality and reliability of their produce, instead of presenting an alternative to conventional agriculture.

Communication content is crucial and it may have a limited impact in the decision making of individuals if other factors are not addressed. Increasing the sustainability consciousness of Swiss citizens, for example through school and work programs, could lead to an increase in interest in CSA as well. Actual experiences could help in bridging the gap between perceived benefits and experienced benefits, exemplifying the individual focused advantages of CSAs. Outreach programs targeting underrepresented groups and partnerships with community organisations can also help diversify membership, as well as decreasing barriers of participation, such as financial constraints (Cotter et al., 2017; Galt et al., 2016).

## 6. Limitations and future research

There are some limitations to this study, which must be considered. The geographic focus of this study on the German-speaking part of Switzerland depicts specific cultural characteristics of this region and limits the generalisability of the findings. Switzerland is culturally diverse and the French-speaking regions for instance have a different gardening and food culture, as well as a stronger tradition of CSA initiatives (Volz et al., 2016). Building on this, future research could replicate this study in the French-, and Italian-speaking part of Switzerland, to allow for a cross-cultural and cross-language comparison of the perception of CSA benefits. Such a study could examine if a different tradition of CSA and other alternative food networks lead to different perceived benefits and WTJ. Further, it could show if different benefits are more effective in convincing non-members from different cultural backgrounds to join. Both insights would enhance the transferability of our findings to other countries and contexts.

Another limitation of this study is that the experimental design did not allow for a variation of characteristics of the concept of CSA. It is known, that CSA initiatives are highly heterogenous and differ in price,



amount and type of harvest, required workload, political agenda, or geographical location (Volz et al., 2016). This diversity may impact perceptions and subsequently the WTJ of non-members. Especially the price of a CSA membership which restricts the access to such organisations (Thoma et al., 2023). Future studies could use a factorial survey approach to assess the influence of financial motivators, entry barriers, as well as other initiative specific factors, such as the distance to a member's place of residence, the initiatives political agenda and engagement, the amount of food provided per delivery as well as the inclusion of diverse products within the harvest share, such as meat, milk, honey, grains, and flour. Additionally, research on factors of abandonment by former participants would be promising.

## 7. Conclusion

Overall, our study shows that there are significant discrepancies between the perception of CSA benefits and their importance for non-members, as well as the factors that are most influential on the WTJ of potential new members. Information did enhance the perception of the overall benefits, but impacted only social and farmer related benefits, with little effect on individual benefit perception. Despite recognizing individual benefits as most important, non-members predominantly viewed CSAs as benefiting farmers and society. The overall benefit perception was nevertheless the most influential factor on the willingness to join, regardless of which benefit was provided to the participants. While information on solidarity with farmers and community benefits reaffirms the demographics already present in CSAs, nutritional benefits are also influential on non-members from broader backgrounds, such as conservatives.

Our findings highlight a critical challenge for Swiss CSAs: the need to realign their framing to emphasise personal advantages of membership, that might need to go beyond nutrition and sustainability, to attract a broader audience. A shift in narrative is essential for bridging the gap between current perceptions and creates potential for widespread participation. Additionally, targeted communication strategies, addressing specific demographic needs and concerns, could make CSA initiatives more diverse and inclusive. CSAs in Switzerland might need to adapt a two threaded approach to their communication and self-presentation, addressing the challenges described in this paper through a focus on individual benefits, whilst still communicating their more traditional altruistic advantages. By using different channels of information, as well as practical experiences, such as try-outs, courses in schools, or cooperation with companies, this change could be achieved.

## CRedit authorship contribution statement

**Stefan Galley:** Writing – original draft, Visualization, Methodology,

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.clrc.2025.100263>.

## Appendices.

**Table A1**

Item Means, Standard Deviation, Correlation and Cronbach's Alpha for WTJ Scale

Group	Overall	Nutrition	Sustainability	Transparency	Solidarity	Community	Control
Mean (SD) WTJ	52.77 (20.21)	56.81 (21.45)	55.95 (20.52)	51.84 (21.21)	52.50 (19.10)	52.70 (20.32)	47.27 (17.46)
Affect*ITJ Correlation	0.57***	0.64***	0.58***	0.62***	0.47***	0.66***	0.47***
Cronbach's alpha	0.72	0.77	0.72	0.75	0.63	0.77	0.62

\*\*\*p < .001.

Formal analysis, Data curation, Conceptualization. **Rita Saleh:** Writing – review & editing, Supervision, Methodology, Data curation, Conceptualization. **Patrick Bottazzi:** Writing – review & editing, Funding acquisition, Conceptualization.

## Data availability statement

The data and questionnaire supporting the findings of this study are available in Zenodo at 10.5281/zenodo.14944916. These data can be accessed freely under creative commons 4.0 license.

## Ethics and consent

This study did not require an ethical approval by an ethics committee, since the research did not entail any harm or discomfort for its participants. We nonetheless followed research and ethics standards. The study was explained to participants in the online questionnaire. They were informed that they would participate in the survey using their personal device, that all data will be de-identified and only reported in the aggregate. All participants acknowledged an informed consent statement in order to participate in the study.

## Declaration of generative AI and Ai-assisted technologies in the writing process

During the preparation of this work the authors used ChatGPT to improve the readability by using prompts for reformulating some of their already written text passages. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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## 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.

**Table A2**  
Item Means, Standard Deviation and Cronbach's Alpha for Overall Benefit Perception Scale

Group	Overall	Nutrition	Sustainability	Transparency	Solidarity	Community	Control
Mean (SD)	60.65 (18.14)	65.98 (18.99)	62.73 (17.66)	59.15 (18.85)	63.14 (16.68)	60.43 (17.78)	53.30 (16.49)
Overall Benefit							
Cronbach's alpha	0.79	0.82	0.72	0.82	0.70	0.78	0.87

\*\*\*p < .001.

**Table A3**  
Correlation Benefit Perceptions

Correlation Overall Sample	1.	2.	3.
1. Individual Benefit	–	–	–
2. Social Benefit	0.65***	–	–
3. Farmer Benefit	0.42***	0.62***	–

\*: p < .05, \*\*: p < .01, \*\*\*: p < .001.

**Table A4**  
Correlation Main Factors Regression for "Nutrition" Group

Variables Nutrition (n = 118)		1.	2.	3.	4.	5.	6.
1.	WTJ	–					
2.	Overall Benefit Perception	0.82***	–				
3.	Trust in Farmer	0.29***	0.28***	–			
4.	Trust in Food Labels	0.07	0.05	0.08	–		
5.	Shopping Behaviour	0.39***	0.39***	0.10	0.17*	–	
6.	Subjective Knowledge	0.03	0.03	–0.01	–0.14	0.20*	–

\*: p < .05, \*\*: p < .01, \*\*\*: p < .001.

**Table A5**  
Correlation Main Factors Regression for "Sustainability" Group

Variables Sustainability (n = 125)		1.	2.	3.	4.	5.	6.
1.	WTJ	–					
2.	Overall Benefit Perception	0.78***	–				
3.	Trust in Farmer	0.25**	0.26**	–			
4.	Trust in Food Labels	0.16*	0.08	0.24**	–		
5.	Shopping Behaviour	0.44***	0.38***	0.11	0.28***	–	
6.	Subjective Knowledge	0.21*	0.06	0.19*	0.18*	0.14	–

\*: p < .05, \*\*: p < .01, \*\*\*: p < .001.

**Table A6**  
Correlation Main Factors Regression for "Transparency" Group

Variables Transparency (n = 128)		1.	2.	3.	4.	5.	6.
1.	WTJ	–					
2.	Overall Benefit Perception	0.83***	–				
3.	Trust in Farmer	0.29***	0.34***	–			
4.	Trust in Food Labels	0.10	0.10	0.25**	–		
5.	Shopping Behaviour	0.45***	0.49***	0.17*	0.36***	–	
6.	Subjective Knowledge	0.13	0.04	0.07	0.09	0.27***	–

\*: p < .05, \*\*: p < .01, \*\*\*: p < .001.

**Table A7**Correlation Main Factors Regression for "Solidarity" Group

Variables Solidarity (n = 120)		1.	2.	3.	4.	5.	6.
1.	WTJ	–					
2.	Overall Benefit Perception	0.79***	–				
3.	Trust in Farmer	0.12	0.26**	–			
4.	Trust in Food Labels	0.16*	0.24**	0.38***	–		
5.	Shopping Behaviour	0.45***	0.38***	0.16*	0.26**	–	
6.	Subjective Knowledge	0.06	0.02	–0.05	–0.20*	0.19*	–

\*: p < .05, \*\*: p < .01, \*\*\*: p < .001.

**Table A8**  
Correlation Main Factors Regression for "Community" Group

Variables Community (n = 129)	1.	2.	3.	4.	5.	6.
1. WTJ	–					
2. Overall Benefit Perception	0.80***	–				
3. Trust in Farmer	0.36***	0.35***	–			
4. Trust in Food Labels	0.38***	0.37***	0.40***	–		
5. Shopping Behaviour	0.46***	0.53***	0.24**	0.31***	–	
6. Subjective Knowledge	0.18*	0.16*	0.05	0.20*	0.09	–

\*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ .

**Table A9**  
Correlation Main Factors Regression for "Control" Group

Variables Control (n = 128)	1.	2.	3.	4.	5.	6.
1. WTJ	–					
2. Overall Benefit Perception	0.72***	–				
3. Trust in Farmer	0.34***	0.39***	–			
4. Trust in Food Labels	0.23***	0.32***	0.24***	–		
5. Shopping Behaviour	0.42***	0.38***	0.29***	0.37***	–	
6. Subjective Knowledge	0.22**	0.14	–0.11	0.00	0.13	–

\*:  $p < .05$ , \*\*:  $p < .01$ , \*\*\*:  $p < .001$ .

## References

- Aprile, M.C., Punzo, G., 2022. How environmental sustainability labels affect food choices: assessing consumer preferences in southern Italy. *J. Clean. Prod.* 332, 130046.
- Barreiro-Hurlé, J., Gracia, A., De-Magistris, T., 2010. Does nutrition information on food products lead to healthier food choices? *Food Policy* 35 (3), 221–229.
- Bazzani, C., Canavari, M., 2013. Alternative agri-food networks and short food supply chains: a review of the literature. *Econ. Agro-Alimentare* 2 (2), 11–34. <https://doi.org/10.3280/ecag2013-002002>.
- Bearth, A., Siegrist, M., 2016. Are risk or benefit perceptions more important for public acceptance of innovative food technologies: a meta-analysis. *Trends Food Sci. Technol.* 49, 14–23.
- Blanke, J., Billieux, J., Vögele, C., 2022. Healthy and sustainable food shopping: a survey of intentions and motivations. *Front. Nutr.* 9, 742614.
- Brehm, J.M., Eisenhauer, B.W., 2008. Motivations for participating in community-supported agriculture and their relationship with community attachment and social capital. *Journal of Rural Social Sciences* 23 (1), 5. <https://egrove.olemiss.edu/jrss/vol23/iss1/5>.
- Carlsson, F., Kataria, M., Lampi, E., 2022. Sustainable food: can information from food labels make consumers switch to meat substitutes? *Ecol. Econ.* 201, 107567.
- Charness, G., Gneezy, U., Kuhn, M.A., 2012. Experimental methods: between-subject and within-subject design. *J. Econ. Behav. Organ.* 81 (1), 1–8.
- Connor, M., Siegrist, M., 2010. Factors influencing people's acceptance of gene technology: the role of knowledge, health expectations, naturalness, and social trust. *Sci. Commun.* 32 (4), 514–538.
- Conroy, D.M., Lang, B., 2021. The trust paradox in food labelling: an exploration of consumers' perceptions of certified vegetables. *Food Qual. Prefer.* 93, 104280.
- Cook, B., Costa Leite, J., Rayner, M., Stoffel, S., van Rijn, E., Wollgast, J., 2023. Consumer interaction with sustainability labelling on food products: a narrative literature review. *Nutrients* 15 (17), 3837.
- Corp, I., 2021. IBM SPSS Statistics for Windows. IBM Corp.
- Cotter, E.W., Teixeira, C., Bontrager, A., Horton, K., Soriano, D., 2017. Low-income adults' perceptions of farmers' markets and community-supported agriculture programmes. *Public Health Nutr.* 20 (8), 1452–1460. <https://doi.org/10.1017/S1368980017000088>.
- Degens, P., Lapschies, L., 2023. Community-supported agriculture as food democratic experimentalism: insights from Germany. *Front. Sustain. Food Syst.* 7, 36.
- DeLind, L., Ferguson, A., 1999. Is this a women's movement? The relationship of gender to community-supported agriculture in Michigan. *Hum. Organ.* 58 (2), 190–200.
- Diekmann, M., Theuvsen, L., 2019. Non-participants interest in CSA—insights from Germany. *J. Rural Stud.* 69, 1–10.
- Diekmann, M., Theuvsen, L., 2022. Value structures determining community supported agriculture: insights from Germany. In: *Rethinking Food System Transformation*. Springer, pp. 83–96.
- Drichoutis, A.C., Lazaridis, P., Nayga Jr, R.M., 2006. Consumers' use of nutritional labels: a review of research studies and issues. *Acad. Market. Sci. Rev.* 2006, 1.
- Egli, L., Rüschoff, J., Priess, J., 2023. A systematic review of the ecological, social and economic sustainability effects of community-supported agriculture. *Front. Sustain. Food Syst.* 7, 1136866.
- Fiedler, M., Madsen, G., 2015. Motivationen landwirtschaftlicher Erzeugern und Verbraucher an Community Supported Agriculture (CSA) in Sachsen.
- Forbes, C.B., Harmon, A.H., 2008. Buying into community supported agriculture: strategies for overcoming income barriers. *J. Hunger Environ. Nutr.* 2 (2–3), 65–79.
- Frewer, L.J., Bergmann, K., Brennan, M., Lion, R., Meertens, R., Rowe, G., Siegrist, M., Vereijken, C., 2011. Consumer response to novel agri-food technologies: implications for predicting consumer acceptance of emerging food technologies. *Trends Food Sci. Technol.* 22 (8), 442–456.
- Galt, R.E., Bradley, K., Christensen, L., Fake, C., Munden-Dixon, K., Simpson, N., Surls, R., Van Soelen Kim, J., 2016. What difference does income make for Community Supported Agriculture (CSA) members in California? Comparing lower-income and higher-income households. *Agric. Hum. Val.* 34 (2), 435–452. <https://doi.org/10.1007/s10460-016-9724-1>.
- Gori, F., Castellini, A., 2023. Alternative food networks and short food supply chains: a systematic literature review based on a case study approach. *Sustainability* 15 (10), 8140.
- Grunert, K.G., Wills, J.M., 2007. A review of European research on consumer response to nutrition information on food labels. *J. Public Health* 15, 385–399.
- Grunert, K.G., Wills, J.M., Fernández-Celemín, L., 2010. Nutrition knowledge, and use and understanding of nutrition information on food labels among consumers in the UK. *Appetite* 55 (2), 177–189.
- Gupta, N., Fischer, A.R., Frewer, L.J., 2012. Socio-psychological determinants of public acceptance of technologies: a review. *Publ. Understand. Sci.* 21 (7), 782–795.
- Haack, M., Engelhardt, H., Gascoigne, C., Schrode, A., Fienitz, M., Meyer-Ohendorf, L., 2020. Nischen des Ernährungssystems: Bewertung des Nachhaltigkeits- und Transformationspotenzials innovativer Nischen des Ernährungssystems in Deutschland. Zwischenbericht im Rahmen des Vorhabens "Sozial-ökologische Transformation des Ernährungssystems—Politische Interventionsmöglichkeiten auf Basis aktueller Erkenntnisse der Transformationsforschung". *TEXTE* 121, 2020.
- Hansen, J., Holm, L., Frewer, L., Robinson, P., Sandøe, P., 2003. Beyond the knowledge deficit: recent research into lay and expert attitudes to food risks. *Appetite* 41 (2), 111–121.
- Harmon, A.H., 2014. Community Supported Agriculture: A Conceptual Model of Health Implications.
- Hvitsand, C., 2016. Community supported agriculture (CSA) as a transformational act—distinct values and multiple motivations among farmers and consumers. *Agroecology and Sustainable food systems* 40 (4), 333–351.
- Ippolito, P.M., 1999. How government policies shape the food and nutrition information environment. *Food Policy* 24 (2–3), 295–306.
- Kirby, C.K., Specht, K., Fox-Kämper, R., Hawes, J.K., Cohen, N., Caputo, S., Ilieva, R.T., Lelievre, A., Ponížy, L., Schoen, V., 2021. Differences in motivations and social impacts across urban agriculture types: case studies in Europe and the US. *Landsch. Urban Plann.* 212, 104110.
- Lass, D., Bevis, A., Stevenson, G., Hendrickson, J., Ruhf, K., 2003. Community Supported Agriculture Entering the 21st Century: Results from the 2001 National Survey. University of Massachusetts, Department of Resource Economics, Amherst.
- Lee, P.Y., Lusk, K., Miroso, M., Oey, I., 2016. Effect of information on Chinese consumers' acceptance of thermal and non-thermal treated apple juices: a study of young Chinese immigrants in New Zealand. *Food Qual. Prefer.* 48, 118–129.
- Leung, Y., 2013. Perceived benefits. In: *Encyclopedia of Behavioral Medicine*.
- Majer, J.M., Henscher, H.A., Reuber, P., Fischer-Kreer, D., Fischer, D., 2022. The effects of visual sustainability labels on consumer perception and behavior: a systematic review of the empirical literature. *Sustain. Prod. Consum.* 33, 1–14.
- Mann, S., 2015. Web-based discourse on agriculture among the general public: comparing Germany and Switzerland. *Br. Food J.* 117 (1), 388–399.
- Medici, M., Canavari, M., Castellini, A., 2021. Exploring the economic, social, and environmental dimensions of community-supported agriculture in Italy. *J. Clean. Prod.* 316, 128233. <https://doi.org/10.1016/j.jclepro.2021.128233>.

- Meise, J.N., Rudolph, T., Kenning, P., Phillips, D.M., 2014. Feed them facts: value perceptions and consumer use of sustainability-related product information. *J. Retailing Consum. Serv.* 21 (4), 510–519.
- O'Rourke, D., Ringer, A., 2016. The impact of sustainability information on consumer decision making. *J. Ind. Ecol.* 20 (4), 882–892.
- Ostrom, M.R., 2007. Community supported agriculture as an agent of change. *Remaking the North American Food System: Strategies for Sustainability*, pp. 99–120.
- Ou, M., Ho, S.S., 2024. Does knowledge make a difference? Understanding how the lay public and experts assess the credibility of information on novel foods. *Publ. Understand. Sci.* 33 (2), 241–259.
- Paul, M., 2019. Community-supported agriculture in the United States: social, ecological, and economic benefits to farming. *J. Agrar. Change* 19 (1), 162–180.
- Pole, A., Gray, M., 2013. Farming alone? What's up with the "C" in community supported agriculture. *Agric. Hum. Val.* 30, 85–100.
- Rahmatika, M.F., Suman, A., Syafitri, W., Muljaningsih, S., 2024. Beyond fields and families: unraveling socio-demographic threads in CSA engagement of Indonesian market. *Journal of Ecohumanism* 3 (8), 9201–9211, 9201–9211.
- Ran, Y., Lewis, A.N., Dawkins, E., Grah, R., Vanhuysse, F., Engström, E., Lambe, F., 2022. Information as an enabler of sustainable food choices: a behavioural approach to understanding consumer decision-making. *Sustain. Prod. Consum.* 31, 642–656.
- Rombach, M., Dean, D.L., Baird, T., 2021. Exploring key factors determining US consumer preferences for growing over buying fruit in pre-covidian and covidian times. *Horticulturae* 7 (12), 575.
- Rossi, J., Allen, J.E., Woods, T.A., Davis, A.F., 2017. CSA shareholder food lifestyle behaviors: a comparison across consumer groups. *Agric. Hum. Val.* 34, 855–869.
- Saleh, R., El Benni, N., Masson, S., Ammann, J., 2024. Public acceptance and sustainability perceptions of food produced with chemical, digital and mechanical weed control measures. *Food Qual. Prefer.* 113, 105079.
- Samoggia, A., Perazzolo, C., Kocsis, P., Del Prete, M., 2019. Community supported agriculture farmers' perceptions of management benefits and drawbacks. *Sustainability* 11 (12), 3262.
- Schmidt, J., Egli, L., Gaspers, M., Zech, M., Gastinger, M., Rommel, M., 2025. Conversion to community-supported agriculture—pathways, motives and barriers for German farmers. *Reg. Environ. Change* 25 (1), 1–14.
- Sharp, J., Imerman, E., Peters, G., 2002. Community supported agriculture (CSA): building community among farmers and non-farmers. *J. Ext.* 40 (3), 1–6. <https://tigerprints.clemson.edu/joe/vol40/iss3/6>.
- Siegrist, M., 2008. Factors influencing public acceptance of innovative food technologies and products. *Trends Food Sci. Technol.* 19 (11), 603–608.
- Siegrist, M., Cvetkovich, G., 2000. Perception of hazards: the role of social trust and knowledge. *Risk Anal.* 20 (5), 713–720.
- Simis, M.J., Madden, H., Cacciatore, M.A., Yeo, S.K., 2016. The lure of rationality: why does the deficit model persist in science communication? *Publ. Understand. Sci.* 25 (4), 400–414.
- Spanier, J., 2025. What does it mean to nurture 'good intentions between city and country'? Performances of rural–urban relations in community-supported agriculture. *Geoforum* 159, 104211.
- Takagi, S., Saijo, M., Ohashi, T., 2025. Consumer segmentation and participation drivers in community-supported agriculture: a choice experiment and partial least squares structural equation modelling approach. *Int. J. Gastron. Food Sci.*, 101129.
- Tay, M.-J., Ng, T.-H., Lim, Y.-S., 2024. Fostering sustainable agriculture: an exploration of localised food systems through community supported agriculture. *Environmental and Sustainability Indicators* 22, 100385.
- Thoma, R., Renz, R., Egli, L., Gerdes, S., 2023. Solidarische Landwirtschaft als Zukunftsmodell? Interesse an Solidarischer Landwirtschaft in der sächsischen Bevölkerung. *Berichte über Landwirtschaft-Zeitschrift für Agrarpolitik und Landwirtschaft*.
- Van Der Merwe, D., Kempen, E.L., Breedts, S., De Beer, H., 2010. Food choice: student consumers' decision-making process regarding food products with limited label information. *Int. J. Consum. Stud.* 34 (1), 11–18.
- Vassalos, M., Gao, Z., Zhang, L., 2017. Factors affecting current and future CSA participation. *Sustainability* 9 (3), 478.
- Volz, P., Weckenbrock, P., Nicolas, C., Jocelyn, P., Dezsény, Z., 2016. Overview of community supported agriculture in Europe. In: European CSA Research Group.
- Walten, L., Wiedmann, K.-P., Schmidt, S., 2021. When more information means less consumer acceptance of innovative food technologies. *Marketing Review St. Gallen* 38 (3), 14–22.
- Wells, B., Gradwell, S., Yoder, R., 1999. Growing food, growing community: community Supported Agriculture in rural Iowa. *Community Dev. J.* 34 (1), 38–46. <https://doi.org/10.1093/cdj/34.1.38>.
- Wu, W., Zhang, A., van Klinken, R.D., Schrobback, P., Muller, J.M., 2021. Consumer trust in food and the food system: a critical review. *Foods* 10 (10), 2490.
- Zoll, F., Kirby, C.K., Specht, K., Siebert, R., 2023. Exploring member trust in German community-supported agriculture: a multiple regression analysis. *Agric. Hum. Val.* 40 (2), 709–724.
- Zoll, F., Specht, K., Opitz, I., Siebert, R., Piorr, A., Zasada, I., 2018. Individual choice or collective action? Exploring consumer motives for participating in alternative food networks. *Int. J. Consum. Stud.* 42 (1), 101–110.