Exploring Communal Agricultural Prosumption

Fostering Alternative Food Networks in Switzerland

Inauguraldissertation
der Philosophisch-naturwissenschaftlichen Fakultät
der Universität Bern

vorgelegt von

Stefan Galley

Leiter der Arbeit:
Dr. Patrick Bottazzi,
Institute of Geography

WISSEN
SCHAFFT
WERT.

Exploring Communal Agricultural Prosumption

Fostering Alternative Food Networks in Switzerland

Inauguraldissertation
der Philosophisch-naturwissenschaftlichen Fakultät
der Universität Bern

vorgelegt von

Stefan Galley

Leiter der Arbeit:
Dr. Patrick Bottazzi,
Institute of Geography

Von der Philosophisch-naturwissenschaftlichen Fakultät angenommen.

Bern, **2.10.2025**

Der Dekan
Prof. Dr. Jean-Louis Reymond

PROMOTION COMMITTEE

Supervisor

Prof. Dr. Patrick Bottazzi

Labour and Social-Ecological Transitions (LASET) Research Group

Institute of Geography

Faculty of Science

University of Bern

External Referee

Dr. Philipp Degens

Socioeconomics and Sociology

Faculty of Business, Economics and Social Sciences

Universität Hamburg

Chairman

Prof. Dr. Jean-David Gerber

Political Urbanism and Sustainable Spatial Development &

Centre for Regional Economic Development

Institute of Geography

Faculty of Science

University of Bern

Preface and Acknowledgement

The presence of those seeking the truth is infinitely to be preferred to the presence of those who think they've found it.

Terry Pratchett - Monstrous Regiment

The road to this dissertation was not an easy one. I encountered obstacles, challenges and people who thought they found truth. Fortunately, I have also met those who seek it, and they have helped me find it for myself. I am deeply grateful to those people. To do them justice I will try to thank them here.

First of all, I want to thank Stefan Mann and Patrick Bottazzi for entrusting me with this project. They supported me throughout and believed in my skills and ideas. I would like to thank Philipp Degens for serving as the external referee and for his valuable time and assessment.

I also want to thank my colleagues from the socio-economics group at Agroscope. The many conversations, small talks, and their support helped me through the tough times and made the good ones even better. Katja, Antonia, Melf, Linda, Manika, Daria and Michael, I am glad that you all became my friends.

A special thank you has to go to those who kept me sane and supported my journey every day, from start to finish and even after they left Agroscope. Steffen and Martina, thank you so much for being there with me. We made it!

One person from this group deserves to be mentioned separately. Rita, I don't know how I could have finished my PhD without you. You stepped up when I needed help the most and selflessly committed yourself to me and my project. You guided me through countless hours of revisions, meetings, and setbacks. You always showed patience, compassion, and a clear way forward. You have made me the researcher that I am today, and I have learned so much from you. Whenever I did not know what to do, I asked myself "What would Rita do?". I will be forever grateful for the moment you have taken over as my supervisor. I could not have wished for a better person, and I am truly happy to have you as a friend.

Kilian and Jonas, from three young German kids at rugby practice, we have made it to three doctorates. You were there for me when times seemed dark. Thank you for always having my back.

Ann Sophie, you constantly managed to motivate me, or at least get me to work, and our writings sessions literally created this dissertation. Thank you for all the hours of co-working and for the great advice in those few minutes of breaks.

I also want to mention those who have made this journey with me from the beginning. Ole, I am glad that we met in the first week of our studies and we were able to go all the way together. You have always shown me what it means to be a sociologist and a good researcher. I am happy to be part of your little family. Vanessa, Marius, Vivi, Laura, Anna and Viviane, you have made my time in university so much better and so much brighter. My friends, my team and everyone around me always supported me and I am thankful for all of you. Lastly, I would like to thank those who are closest to me.

Mama und Papa, danke, dass ihr immer für mich da wart und mich in jedem Schritt unterstützt habt. Ihr habt meine Neugierde immer gefördert und habt mir dabei den Raum gelassen, so zu werden, wie ich heute bin. Marc, ohne dich hätte ich wahrscheinlich nie den Weg eingeschlagen, den ich als Wissenschaftler gegangen bin. Unsere Beziehung ist das beste Beispiel für interdisziplinäre Zusammenarbeit und ich bin froh, dass ich all deine Abschlussarbeiten überarbeiten musste. Danke Silv, für deine ruhigen Worte und deine Zuversicht.

Liebe Hannah, ich bin so froh dich an meiner Seite zu haben. Du warst mit mir traurig, du hast dich mit mir gefreut, und du warst mit mir gestresst, aber du hast immer an mich geglaubt, auch wenn ich selbst es nicht tat. Ohne deinen Rückhalt und deine Liebe hätte ich es nicht durchgehalten.

Mimo, diese Arbeit ist für dich.

TABLE OF CONTENT

Preface and Acknowledgement I

Lists of Figures and Tables V

List of Abbreviations VI

1. INTRODUCTION 1

1.1 Theoretical Foundations: Prosumption, Alternative Food Networks and Alternative Economies 5

1.1.1 Understanding Prosumption 5

1.1.2 Prosumption in Alternative Food Networks and Alternative Economies 6

1.1.3 Theory in Practice: Motivation for CAP 9

1.2 Communal Agricultural Prosumption 11

1.2.1 Allotment Gardens 13

1.2.2 Community Gardens 15

1.2.3 Community Supported Agriculture 17

1.2.4 Other Forms of Agricultural and Food Prosumption 18

2. METHODS 20

3. RESEARCH ARTICLES 22

3.1 Article 1 – Growing Together – How Institutional Structures Influence Communal Agricultural Prosumption Types and their Potential for Continuity 22

3.2 Article 2 – Contrasting Prosumption Models: Experiences, Benefits and Continuation in Allotment Gardens and Community-Supported Agriculture in Switzerland 51

3.3 Article 3 – Benefit Perception and their Influence on the Willingness to Join Community Supported Agriculture (CSA) 80

4. DISCUSSION AND CONCLUSION 108

4.1 Summary of the Research Goal and Approach 108

4.2 Cultural Changes for CAP Growth 110
4.3 Recommendations for Organisations 112
4.3.1 Organisational Best Practice Approaches 112
4.3.2 Inter-Institutional Networks 114
4.3.3 Reducing Barriers 115
4.3.4 Tailored Communication Strategies 117
4.4 Recommendations for Policy Makers 119
4.4.1 Acknowledging CAP as Crucial Sustainable Food Systems 119
4.4.2 Financial and Administrative Support 120
4.4.3 Reducing Barriers 121
4.5 Limitations and Implications for Future Research 123
4.6 Concluding Remarks 125
5. BIBLIOGRAPHY 128
6. APPENDIX 142

Lists of Figures and Tables

Table i: Overview of articles, authorship, publication status, research design and research questions	4
Article 1	
Table 1: Main characteristics of the investigated CAP types	31
Table 2: Barriers and facilitators to the continuity of the different types of CAP on the individual, institutional and socio-political levels	40
Table 3: Perceived outcomes of the structures of the CAP types on the individual and societal levels	44
Article 2	
Table 1: Mean and standard deviation (SD) of sociodemographic characteristics of total sample and CAP types	60
Table 2: Comparison of mean and standard deviation (SD) of scales across total sample and CAP types	65
Table 3: Pearson's correlations of predictors for continuation in CAP types	68
Table 4: Regression analysis summary for predicting continuation of AG and CSA	70
Table 5: Importance rating of nature connectedness, community interaction and social change - Means and standard deviation (SD) for total sample and CAP types	71
Figure 1: Means perceived importance of nature connectedness, community interaction and social change for CAP types	72
Article 3	
Table 1: General information about the concept of CSA and specific benefits by groups	90
Table 2: Socio-demographics of the sample	91
Table 3: Means, standard deviation and item total correlation: Sustainable food shopping behaviour scale	93
Table 4: Means, standard deviation and item total correlation for the trust in food labels and subjective knowledge scales	94
Figure 1: Benefit perceptions for the individual, society and farmers by the six groups.	96
Table 5: Benefit perceptions for the individual, farmer and society for the groups with the means (M) and standard deviations (SD)	97
Table 6: Mean and standard deviation for willingness to join	98
Table 7: Regression analysis on the dependent variable willingness to join for the six groups	100
Appendix	
Table A1: Item means, standard deviation, correlation and Cronbach's Alpha for WTJ scale	141
Table A2: Item means, standard deviation and Cronbach's Alpha for overall benefit perception scale	141
Table A3: Correlation benefit perceptions	141
Table A4: Correlation main factors regression for "Nutrition" group	142
Table A5: Correlation main factors regression for "Sustainability" group	142
Table A6: Correlation main factors regression for "Transparency" group	142
Table A7: Correlation main factors regression for "Solidarity" group	143
Table A8: Correlation main factors regression for "Community" group	143
Table A9: Correlation main factors regression for "Control" group	143

List of Abbreviations

AFN – Alternative Food Network

AG – Allotment Garden

CG – Community Garden

CSA – Community Supported Agriculture

CAP – Communal Agricultural Prosumption

SDG – Sustainable Development Goals

GT – Grounded Theory

IDI – In-depth Interview

PO – Participant Observation

UN – United Nations

SDG – Sustainable Development Goals

p-a-p – Prosumption-as-production

p-a-c – Prosumption-as-consumption

1. INTRODUCTION

Today's food system affects and is affected by multiple global and local challenges. The climate crisis, international wars and conflicts, social injustice, as well as societal change and increased urbanisation are all impacting the way we buy, sell, produce, consume and value food (Cohen et al., 2023; Vermeulen et al., 2012). The food system itself also creates sustainability issues. Globalisation and market economies have led to long and unjust value chains, high CO2 emissions, high reliance on fertilisers and pesticides, and intrusive land management, such as deforestation (Howard, 2022; Tubiello et al., 2022). In addition, there is a large social and economic divide between producers, retailers and consumers, often to the disadvantage of producers and consumers alike (Fuchs et al., 2009; Howard, 2021).

Solving these multifaceted issues is difficult and a seemingly endless process requiring the cooperation of governments, companies and populations. Nevertheless, alternative agricultural production systems could play a crucial role in taking the right steps in the right direction. These systems can strengthen local value chains, help reduce CO2 emissions, lower the overall impact of food production on climate change, and create good and just livelihoods for farmers (Jacobi et al., 2021; Webb et al., 2020). On a local level, the growing disconnect between the population of modern urban societies and the sources of their food can also be addressed by the introduction of alternative food networks (AFNs) (Barbera & Dagnes, 2016; Bazzani & Canavari, 2013; Opitz, Zoll, et al., 2017). AFNs have the potential to change the value and situation of food in society through direct links between the actors of the food system, thus leading to a just and more sustainable food system transformation (Dornelles et al., 2022). Many of these initiatives (such as subscription boxes) revolve around the producer. However, private and direct food production by consumers themselves has become increasingly popular as well. This trend became visible for example during the Covid-19 pandemic, when many people tried their hand at producing food in their garden or on their balcony (Bieri, 2021; Busby, 2020; Meister, 2020; Shirvell, 2021; Winkler et al., 2019). Now and even before the pandemic,

space to produce food is not always available. Those who did not have access to their own gardening spaces turned towards collective gardening associations (Winkler et al., 2019). In Switzerland, allotment gardens (AG), community gardens (CG) and community supported agriculture (CSA) have been prominent outlets to reconnect to agriculture and food production, especially for urban populations. These initiatives enable their members as consumers to take part in the production process, thus becoming agricultural *prosumers* (Palmioli et al., 2020; Podda et al., 2021; Ritzer & Jurgenson, 2010; Toffler, 1980; Veen et al., 2020).

Central to these communal agricultural prosumption (CAP) activities is the communal production of food for a group's own consumption. Additionally, these organisations recognise food not only as sustenance, but as a medium for individual benefits, community building and social change.

Regardless of their potential, CAP initiatives are not as widespread in Switzerland as their multifaceted benefits seem to suggest. AGs are under constant threat due to urban densification. CGs face similar problems, and in addition suffer from an ongoing privatisation of public spaces. Regulations for CSAs are often unspecific and difficult to interpret, creating complications in establishing new organisations as well as in their daily operations. CSAs and AGs are traditionally milieu specific, which means that their membership is largely homogeneous in regard to income, education, and especially cultural background. Through their history, AGs are heavily influenced by working-class ideas but have also built up the reputation of being bourgeois. CSAs are often seen as dominated by left-leaning, green upper-class members, often with a high-education background. As these preconceptions are partly true, they hinder the spread of CAP organisations and activities to a wider range of people (Egli et al., 2023; Galley, Mann, & Bottazzi, 2025). A lack of knowledge and experience in gardening, financial restrictions, and time constraints are significant barriers for adoption as well, especially in the work-orientated society in Switzerland.

The central goal of this dissertation is to improve the situation of CAP initiatives in Switzerland, by generating knowledge on their specific characteristics, benefits, and struggles. It then aims to gain deeper insight into how CAP organisations retain their members as well as generate a wider membership

base. An increase in CAP, with more organisations and more active members, would have the potential to reduce the impact of agriculture on climate change, increase the societal value of food and help bridge the gap between consumers and producers, and thus also the urban-rural divide. In addition, CAP would help to achieve the United Nations' sustainable development goals (SDGs), SDG 11 and SDG 12 (UN, 2015). While there are studies on effects, benefits and motivations in urban agriculture and AFNs (Brehm & Eisenhauer, 2008; Clayton, 2007; Fiedler & Madsen, 2015; Göttl & Penker, 2020; Kingsley et al., 2019; Kirby et al., 2021; McVey et al., 2018), multiple social and organisational aspects of CAP organisations and how these aspects shape member experiences are missing from the literature. The broader comparative, prosumption-orientated scope of this dissertation seeks to change this. Further details on the specific research gaps are outlined within each of the three included studies.

To understand how CAP can be improved, it was necessary to divide the research process into three steps, represented by the three studies included in this dissertation (see Table 1 for an overview of the three articles).

The first study used a broad exploratory approach to better understand the similarities and differences of the three major CAP types, allotment gardens (AGs), community gardens (CGs), and community supported agriculture (CSAs). Comparing the organisational structures, operational dynamics, and factors that hinder or support the uptake and continuity of these activities, we identify institutional barriers and facilitators of CAP, as well as different societal outcomes related to AGs, CGs, and CSAs.

Based upon these findings, the second study focuses on the experiences of individual members within CAP. A survey among CSA and AG members allowed for a comparison of the experiences of participants within two different types of CAP. The comparative perspective provides a deeper understanding of the factors that sustain engagement in different CAP models and provide the basis for a theoretical discussion on CAP's position in the current literature of prosumption and alternative economies. In addition, the study sheds light upon the relevance of CAP related individual benefits, and how these experienced benefits impact the members' willingness to continue.

While the first two studies focused on the internal perspective of CAP, the third study aims to clarify external perception of CAP. Using an experimental survey design, it explores how different ways of communicating CSA benefits influence non-members' perceptions and willingness to join, providing practical insights for increasing and diversifying CSA membership.

Together, these three studies provide a comprehensive view of CAP in Switzerland. They identified institutional structures and their respective benefits and limitations, revealing members' experiences and motivations, especially with regard to continuation. The studies also show which benefits of CAP and communication strategies are important for non-members and which are useful for a broader adoption. By addressing these aspects, this dissertation aims to strengthen CAP's role as AFNs in Switzerland, and to help understand the concept of prosumption within the realm of food production.

Table i: Overview of articles, authorship, publication status, research design and research questions

Article Title	**Article 1** Growing together – How institutional structures influence communal agricultural prosumption types and their potential for continuity	**Article 2** Contrasting Prosumption Models: Experiences, Benefits and Continuation in Allotment Gardens and Community-Supported Agriculture in Switzerland	**Article 3** Benefit perceptions and their influence on the willingness to join community supported agriculture (CSA)
Authorship	Stefan Galley, Rita Saleh, Patrick Bottazzi	Stefan Galley, Stefan Mann, Patrick Bottazzi	Stefan Galley, Rita Saleh, Patrick Bottazzi
Status	**Published in 2025 in:** Journal of Rural Studies, 116, 103625. (IF:5.7)	**Published in 2025 in:** Societies, 15(5), 126. (IF:1.9)	**Published in 2025 in:** Cleaner and Responsible Consumption, 17, 100263. (IF:5.3)
Research Design	Grounded Theory-driven, qualitative organisational analysis	Quantitative survey amongst prosumer	Online experiment and quantitative survey among non-members
Research Questions	**1.1** What are the key institutional structures of the three CAP types and how do they differ from each other? **1.2** How do the institutional structures of the three CAP types impact their ability to adapt to internal and external challenges?	**2.1** How do the experienced benefits and the experienced organisational and community involvement in AGs and CSAs differ along the prosumption continuum? **2.2** How do these pragmatic experiences, the involvement and activism shape the long-term commitment to prosumption?	**3.1** How does information provision regarding the different benefits of CSA impact non-members' benefit perceptions of CSA for individuals, farmers and society? **3.2** Which benefits of CSAs are most important for non-members?

	2.3 How important are individual-centred, community-centred and society-centred effects of prosumption for members of AGs and CSAs?	**3.3** 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)?

1.1 Theoretical Foundations: Prosumption, Alternative Food Networks and Alternative Economies

1.1.1 Understanding Prosumption

The term prosumer, as a neologism combining producer and consumer, was first established by Alvin Toffler in his book "The Third Wave" (1980), where he described a shift beyond industrial mass production towards a decentralised and knowledge-driven economy. The strict division between producers and consumers established during the industrialisation is changing in the post-industrialised world. He argued that individuals would regain agency by once becoming producers and consumers again, as it was generally the case in pre-industrial societies where households were responsible for many of their own goods and services. Toffler did not see the return to prosumption as a regression, but rather as part of an evolutionary societal transformation enabled by new technologies and a flexible, post-industrial society. While visionary, Toffler's vision is open for criticism, especially due to its overly optimistic and somewhat technocratic outlook that does not take structural inequalities and power asymmetries within capitalist modes of production into consideration.

The term itself did not gain much traction in the thirty years after Toffler's book, but was re-established in 2010 by George Ritzer and Nathan Jurgenson (2010). The authors reintroduced and redefined the concept of prosumption within the framework of critical sociology, arguing that the boundaries between production and consumption had not merely blurred but become systematically exploited under advanced capitalism. Ritzer in particular (2015) offers a sceptical assessment of prosumption. Rather than empowering individuals, prosumption in contemporary contexts, such as user-

generated content on social media or self-service in fast-food restaurants, has become a mechanism through which corporations externalise labour costs onto consumers. What appears as participation is often unpaid labour disguised as convenience or empowerment. Ritzer and Jurgenson argue that the digital economy thrives on this form of prosumption, with users producing vast amounts of content, data, and value without compensation (Ritzer & Jurgenson, 2010). In this perspective, the rise of prosumption does not herald a return to communal self-sufficiency or emancipation but rather intensifies capitalist structures by exploiting labourers and consumers. Article 2 gives a detailed report and discussion on Ritzer's and Jurgenson's prosumption theory and its link to exploitation and capitalism.

This critical turn in the conceptualisation of prosumption is central to understanding its political ambivalence. While Toffler viewed the prosumer as a post-industrial citizen reclaiming autonomy, Ritzer exposes the risk that prosumption can reproduce new forms of unpaid labour and deepen economic inequalities. These contrasting viewpoints are particularly relevant when examining agricultural prosumption, where questions of autonomy, labour, participation, and ownership are negotiated in everyday activities and experiences. This dissertation does not adopt one over the other theory, but rather applies them to illuminate the problems and possibilities within CAP.

1.1.2 Prosumption in Alternative Food Networks and Alternative Economies

While early literature on prosumption mainly highlighted the context of digital capitalism and immaterial labour (Beer & Burrows, 2010; Comor, 2010; Fuchs, 2014), the concept has also been applied within the food sector. The idea of a prosumption-based food system has been articulated prominently in 1986 by the Slow Food founder Carlo Petrini, who argued for active and participatory consumers as co-producers (Petrini, 2003). While the term prosumption required the work of Ritzer to re-establish itself in social and food related sciences, other terms were, and are still used, to research various practices centred around localised and participatory production and distribution of food. Among others, food sovereignty, food justice, food security, resilience, self-sufficiency, agroecology, urban farming, green infrastructure, community food systems, and commons-based approaches are commonly

used concepts. While these terms highlight distinct dimensions, such as political, ecological, economic, spatial, or social characteristics, they are often overlapping, similar or even interchangeable with the agricultural prosumption label.

A framework that aims to capture most of these practices is *Alternative Food Networks* (AFNs) (Barbera & Dagnes, 2016). AFNs typically aim to shorten value chains and restore local food production, either through direct participation in growing food or through closer, trust-based relationships between producers and consumers. In this sense, agricultural prosumption is clearly part of these AFNs (Podda et al., 2021), but it is rarely used explicitly in the context of food systems (Espelt, 2020; Hellmann, 2016; Palmioli et al., 2020; Veen et al., 2020), where more established labels, such as AFNs, agroecology, or food sovereignty, are preferred (Bazzani & Canavari, 2013; Gori & Castellini, 2023; Hunter et al., 2022; Opitz, Zoll, et al., 2017; Savarese et al., 2020; Zoll et al., 2018).

This conceptual unclarity leads to a highly fragmented terminology, despite a shared interest in researching and building alternatives to the conventional food system. In this dissertation, the term "*Alternative Food Networks (AFNs)*" is used as an overarching framework to describe initiatives and practices that aim to shorten food value chains, reconnect producers and consumers, and propose alternatives to the dominant food system. Within this framework, "*communal agricultural prosumption (CAP)*" refers specifically to those AFN initiatives in which individuals actively participate in food production through their own labour. CAP thus captures the more engaged and hands-on forms of prosumption found in practices such as community-supported agriculture, community gardens, and allotment gardens.

While concepts such as CAP and AFNs describe specific practices and organisational forms within the food system, they are often situated within broader visions of societal and economic transformation. These higher-level theoretical frameworks, such as alternative or diverse economies, solidarity economy, degrowth, postgrowth, the commons, and contributive economy, offer different perspectives on the underlying logics that shape and support food prosumption. The framework of diverse economies

(Gibson-Graham, 2008) challenges the conventional classifications of capitalism as the only viable economic system, by highlighting diverse, non-capitalist, and hybrid economic practices based on cooperation, reciprocity, and shared values (Cameron, 2015; Veen & Dagevos, 2019).

Similarly, contributive economy positions itself on the margins of market economy (Bottazzi, 2019). It repositions actors not as passive recipients or consumers, but as active contributors whose labour, engagement, and knowledge generate collective value and aim to fulfil societal needs, rather than creating profit (Stiegler, 2018). A deeper characterisation and comparison of contributive economy and diverse economies is discussed in the second article of this dissertation (Galley, Mann, & Bottazzi, 2025). Closely associated with these concepts are solidarity economies, which emphasises democratic control of the market, collective ownership of initiatives and mutual aid (Laville, 2010). Lastly, degrowth and postgrowth perspectives aim to critique the seemingly fundamental need of economic growth as a measure of progress (Kallis et al., 2018). Instead, they call for a new orientation of production and consumption focusing on sufficiency, ecological balance and social care (Cosme et al., 2017). The roots of this theory for change can be traced back at least to the early 1970s, most prominently through the Club of Rome's Limits to Growth report (Meadows et al., 1972).

Commons theory conceptualises shared resources as collectively governed goods that are managed by a community according to established rules, norms, and mutual responsibilities (Ostrom, 1990). The commons rely on democratic self-organisation and long-term stewardship, often rooted in local knowledge and community accountability. While commons theory aligns well with the participatory and decentralised ethos of some CAP forms, such as CGs, it can be a difficult fit in more structured or state-mediated CAP contexts like AGs or CSAs. These often operate within clearly defined legal, administrative, or market structures, which may limit the applicability of a commons framework in practice. Additionally, the ideal of self-managed commons can obscure unequal access to time, knowledge, or capital required for meaningful participation, thus potentially reinforcing social exclusion rather than overcoming it.

Similar to the multiple overlapping and similar terms regarding agricultural prosumption and AFNs, these higher-level theories often share multiple aspects but differ in their viewpoints and goals. Nevertheless, CAP initiatives can be seen as local enactments of these broader visions (Ponstingel, 2023; Timmermann & Félix, 2015). They reorganise relationships between producers and consumers, create shared forms of responsibility, and foster participation in systems of value creation that are not primarily market driven. In this way, food prosumption becomes not only a practical intervention in food systems but also an expression of a deeper desire to transform the way we live, produce, and relate to one another.

1.1.3 Theory in Practice: Motivation for CAP

Building on the theoretical framing of CAP and AFNs, it becomes necessary to understand how these ideas are enacted in practice. While concepts such as co-production, solidarity, and contributive participation are useful analytical tools, they acquire concrete meaning through the lived experiences and motivations of CAP participants. By examining tangible benefits and personal drivers, the social relevance, transformative potential, and practical implications of communal agricultural prosumption can be better understood.

Existing research identifies a range of motivations in CAP activities linked to numerous benefits, especially regarding physical and mental health. Being active through gardening or fieldwork raises exposure to fresh air and sunlight as well as providing exercise and a sense of achievement, thereby directly contributing a positive impact on physical and mental health (Van den Berg et al., 2010; Wood et al., 2016). CAP, as urban green infrastructure, offers green spaces for leisure which help to reduce stress and increase mindfulness (Amsden & McEntee, 2011; Farmer et al., 2011; Farmer et al., 2017). Additionally, growing plants can foster a sense of biophilia (Grinde & Patil, 2009; Wilson, 2021). While these activities in themselves can have a positive impact, the regular intake of diverse produce enriches CAP members' diets and increases their consumption of high-quality vegetables and fruits (Alaimo et al., 2008; Vasquez et al., 2017). CAPs are also linked to an increase in knowledge and skills related to food production and the food system, thus creating places of teaching and learning, while also fostering

self-reliance, agency and empowering individuals through knowledge (Bendt et al., 2013; Bergan et al., 2023; Corkery, 2015; Krasny & Doyle, 2002). Through their community focused organisational structure, AGs, CGs and CSAs can build social cohesion and create different forms of communities, based on the common interest of food prosumption (Christensen et al., 2018; Hvitsand, 2016; Kirby et al., 2021; Lake et al., 2012; Nettle, 2016; Porter & McIlvaine-Newsad, 2013; Scott et al., 2020). Characteristics such as shared labour, organisational exchange and involvement, or spatial proximity can lead to strong interpersonal bonds.

Beyond personal and community benefits, CAP can also serve as a vehicle for socio-political engagement. Particularly in community-supported and activist-led contexts, participation is frequently motivated by a desire to challenge dominant agri-food systems, promote food sovereignty, and support more just, sustainable, and democratic models of production and consumption (Brehm & Eisenhauer, 2008; Degens & Lapschieß, 2023; Takagi et al., 2025; Winkler et al., 2019). In particular, CAP members often base their engagement on a broader political or ethical commitments, whether to sustainability, solidarity with farmers, or a critique of the industrial food system.

On a broader scale, CAP organisations can connect people across national and international networks through their shared activity in AFNs. This shared engagement has the potential to contribute to social change by changing consumption patterns and attitudes towards food systems (Brehm & Eisenhauer, 2008; Degens & Lapschieß, 2023; Haack et al., 2020; Hvitsand, 2016; Wells et al., 1999). In Switzerland, where a strong urban-rural divide influences food related politics, a deeper understanding of food production and a greater appreciation of high-quality produce might also lead to a better understanding of the challenges farmers are facing on a daily basis. This in turn could generate a higher willingness to support fairer prices for conventionally produced food products.

In addition to the social and economic potential for change, CAP offers unique ecological benefits, including urban green infrastructure, ecosystem services, and nature-based solutions for their surroundings. By creating useable urban green spaces, as well as ecological and organic farmland, CAP organisations can enhance biodiversity, mitigate urban heat islands and contribute to climate adaptation

strategies (Breuste, 2010; Breuste & Artmann, 2015; Camps-Calvet et al., 2016; Sowińska-Świerkosz et al., 2021). All in all, the benefits of CAP reach beyond individual well-being to support community resilience and ecological sustainability, core concerns of AFNs and alternative economic models. However, as the three research articles of this dissertation show, access to these benefits is not universal and depends heavily on institutional design, member involvement, and how values and responsibilities are communicated both internally and externally.

1.2 Communal Agricultural Prosumption

Toffler's historic lens (Toffler, 1980) lends itself to an interesting view on agricultural prosumption. Historically speaking, gardening and food production have always been an informal and subsistence-focused activity to increase the food security of a specific group. This individualised or family-focused form of prosumption presupposes one condition: access to appropriate space to grow produce or rear livestock.

Although a lack of space was typically not an issue in rural, pre-industrial Europe, access rights often were. One of the earliest institutionalised solutions to this problem was the commons (German: *Allmende*), land made available by the nobility or the Church for collective use by the local population. These areas could be used for grazing livestock, collecting firewood, or gathering herbs and wild food, and were self-organised by those who depended on them. The cultivation of crops and produce on commons were generally difficult, as arable farmland was typically under individual ownership or management.

Urbanisation and industrialisation during the 18th and 19th century changed the situation again. Common land was privatised and green spaces were taken away from the urban population, while rural families were often forced to move from their homesteads to the city in order to make a living (Acton, 2011). In Switzerland, the pre-existing gardens outside the city walls were often claimed by new housing and the rapidly growing cities of the 19th century (Schwerzmann, 2013). AGs were one of the first institutionalised and organised structures to combat this problem on a larger scale and introduce forms

of CAP. These gardens provided not only a means of subsistence but also recreational and social opportunities, marking a significant evolution from the traditional commons. Unlike the commons, which were primarily focused on shared resource use, AGs introduced a more structured and individualized approach to communal land use, reflecting the changing needs and circumstances of urban populations.

While allotments were highly important for the poor urban population, private subsistence gardens were mainly a rural phenomenon, but were mostly important for those who could not afford to buy produce. Today, private gardens and other forms of individual agricultural prosumption remain highly prominent and can be found in most, if not all societal milieus. Individual gardening practices offer numerous benefits for the participats, such as improved health and nutrition (Schmutz et al., 2014; Soga et al., 2017), economic benefits (Legesse et al., 2016) and increased food security (Galhena et al., 2013).

Nevertheless, the societal effects of CAP types go beyond the individual focus on subsistence and personal benefits. Communal forms are able to create shared spaces where people negotiate access, organise labour, and collectively define goals. These social processes foster cooperation, democratic engagement, and social learning, which allow CAP to exert a broader cultural and political influence.

Importantly, neither individual nor communal prosumption can replace conventional agriculture as a primary food supply or subsistence. However, their potential lies less in replacing production systems and more in transforming the attitudes and values underpinning them. By embedding food production within social structures, communal forms can catalyse reflection, experimentation, and norm change, thus offering a pathway toward more sustainable and sufficiency-oriented food practices.

Against this backdrop, it is useful to differentiate between the various forms of CAP found today. In the context of Switzerland, the three main types (AG, CG and CSA) embody specific features and meanings, often based on their historical developments. They coexist with other, less formal but significant food-related prosumption activities, such as home gardens, foraging, hunting and fishing.

While highly individualised, these remain important subsistence practices in some regions and carry historic and social meaning.

1.2.1 Allotment Gardens

Allotment Gardens (AGs) are small plots of land, provided for individuals or families to grow food and flowers, and use for recreational purposes (Poniży et al., 2021). In general, city-owned land is given to organisations for administration and distribution to their members. Those who want to rent an allotment for personal use need to become a member of the respective organisations first (Szczepańska et al., 2021).

In Western Europe, the concept of cultivating plots of land outside the city gates dates back to the middle ages and was found in writings of the 15th century (Schwerzmann, 2013). The first allotment-type structures developed in response to urban pressure in 18th-century England (Thorpe, 1975), but it was the industrial revolution that drove the widespread institutionalisation of AGs. A massive population shift towards urban centres, for instance the doubling of Winterthur's population between 1860 and 1880 (Schwerzmann, 2013), inevitably created severe housing shortages. Cities responded with dense tenement houses, often characterised by poor hygiene and cramped living conditions. To give these families a place to retreat, save money and bolster their nutrition, AGs were created on the edges of the city or dense neighbourhoods (Acton, 2011; Schwerzmann, 2013). This idea of establishing gardens to promote a healthier lifestyle of the poor was an important driver in the early stages of the AG movement. In Germany, health and social reforms linked these "*Schrebergärten*" with the teachings of Dr. Moritz Schreber whose writings on public health inspired a whole movement (Kononowicz & Gryniewicz-Balińska, 2016). In several other countries, religious and charitable organisations played a pivotal role, such as the Catholic Church which for example supplied land for allotments in Belgium (Heyrman, 2022).

While AGs were initially established to mitigate the social and nutritional consequences of rapid urbanisation, their function expanded significantly during times of crisis in the early 20th century

(Acton, 2011; Burchardt, 2002). During the two World Wars and the Great Depression, allotment gardens gained political and social significance as a response to food scarcity and economic hardship. Across Europe, national and municipal authorities promoted urban gardening to reduce reliance on disrupted supply chains and to bolster civilian morale (Acton, 2011; Poniży et al., 2021). In Switzerland, the government strongly supported allotment cultivation as part of broader self-sufficiency efforts. Urban green spaces, such as city parks in Zürich and Basel, were repurposed for gardening, and citizens were encouraged to participate in food production, either directly for themselves or, under the term "*Anbauschlacht*", for the population (Schwerzmann, 2013). A similar dynamic occurred in the United Kingdom and the United States, where Victory Gardens were promoted as a civic duty and became widespread on public and private land during both world wars (Acton, 2011). In all cases, these initiatives served not only to alleviate hunger but also to empower populations during times of uncertainty. The success of these programs during crises helped establish AGs' place in Europe's post-war planning and policy, where their role in urban food security and social cohesion was increasingly recognised (Poniży et al., 2021).

While the original idea of allotment was aimed at working classes, the crises of the 20th century saw an influx of people from all societal milieus, many of whom stayed in the cities. In the 1920s, middle-class citizens discovered the social capacities of AGs for themselves. As Acton puts it: '*Being a member of an allotment society offered opportunities to network, both on and off-site, through events such as dinners, concerts and charitable giving.'* (Acton, 2011). Today, the aspect of a social club is less prevalent, since most members concentrate on the more individualistic benefits of recreation and food prosumption. Still, allotment associations have the potential for social interaction and networking, especially between classes and milieus. Today, the Swiss umbrella organisation for AGs counts approximately 23.000 members all over Switzerland (Familiengärtner-Verband, 2023). The Covid-19 pandemic led to a rise in interest in allotments, which has since gone down slightly, but many AGs still have full waiting lists. A generational change is also happening within these institutions. The strong allotment generation of migrant workers who came to Switzerland and Germany in the 60s and 70s are

now retiring their gardening tools, and new families or younger generations have discovered allotments for themselves.

AGs offer many benefits to individuals and the surrounding neighbourhood (Gómez-Baggethun & Barton, 2013; Van den Berg et al., 2010; Wood et al., 2016), but are often overlooked in modern city planning. While new CGs are incorporated into developing neighbourhoods due to their small footprint and social agenda, AGs are frequently demolished and their sites reclassified as building land (Jahrl et al., 2022). Technological advancements, such as better insulated windows, enable houses to be built in formerly uninhabitable spaces, where gardens once thrive.

1.2.2 Community Gardens

CGs can be defined as '*organized initiative(s) whereby sections of land are used to produce food or flowers in an urban environment for the personal or collective benefit of their members who, by virtue of their participation, share certain resources such as space, tools and water'* (Glover et al., 2007). This broad definition shows the variances of CGs that can be found around the world. While in the New World, CGs and AGs are often used synonymously, it is important to distinguish these types, due to their history, their democracy-based organisational forms, different plot sizes, shared knowledge, strong communal interaction, and shared spaces, tools, and labour. In general, especially in Europe and Switzerland, CGs are organised through communal associations, NGOs or governmental organisations (Göttl & Penker, 2020, p. 33). There are significant differences between CGs and their internal organisation. Some have an allotment style approach where members are able to have their own raised bed, where they are able to choose what do grow themselves. In other initiatives the garden is a collectively shared space, with shared workload, and communal decision-making. These two forms are generally extremes, and the actual form is often somewhere in between, for example with small raised-beds and a larger communal area.

The origins of CGs can be traced back to the idea of the commons in medieval Europe. Nevertheless, the first gardens as we know them today have been established as relief gardens during the world wars.

Indeed, they also share similarities with school or hospital gardens, which could also be seen as precursors. While these war gardens were generally only temporary and had the main goal of subsistence, modern variants of CGs have, next to food security, social goals such as neighbourhood cohesion, education, and integration. These *urban gardens* gained popularity in the US in the 1970s as a reaction to the urban crisis (Lawson, 2005). In Switzerland, CGs started to appear later, but became prominent in the late 1990s and 2000s, due to the rise in environmental awareness and the need for social integration and urban regeneration. CGs are often seen as possibilities to improve a neighbourhood through increased social contact between the population, as well as to beautify and create green space within an urban landscape. For this reason, they are often used as integrative projects, either for immigrants or other marginalised groups (Christensen et al., 2018; Porter & McIlvaine-Newsad, 2013; Scott et al., 2020; Tidball et al., 2010). In the USA community gardens have also become popular to combat the surge of so-called food deserts, areas where the population has no or limited access to fresh and healthy food (Wang et al., 2014). Their close relationship to school gardens can be seen in CGs potential as places of education, where participants not only profit from social interactions but also learn about gardening, science, nutrition and environmental diversity (Corkery, 2015; Krasny & Doyle, 2002). As for the other types of CAP, interest in CGs spiked during COVID-19, as places for safe social interaction and local resilience (Joshi & Wende, 2022). The exact number of CGs in Switzerland is unclear, so their impact is hard to guess, but there are plenty initiatives that organise a number of gardens. such as the church-led organisation HEKS with more than 27 projects (HEKS, 2025).

Despite their small size and multiple positive effects, CGs struggle with long term planning, since spaces provided by the municipality are generally only temporary. This inhibits the possibilities for larger scale food production, for example, through fruit-bearing trees or soil restoration techniques. Additionally, if funding for NGOs or other organising bodies is reduced, CGs are often the first projects to be cut.

1.2.3 Community Supported Agriculture

The core concept of CSA was first established in the 1960s in Japan (Van En, 1995). Around the same time, similar ideas emerged in biodynamic farming circles in Switzerland and Germany, and the concept gained traction in the US in the 1980s, where Indian Line Farm and Temple-Wilton Community Farm are regarded as the first modern CSAs (Groh & McFadden, 1998). In Switzerland, early initiatives such as *Les Jardins de Cocagne* near Geneva played a pioneering role, promoting organic, locally rooted food production within cooperative structures (Fédération Romande d'Agriculture Contractuelle de Proximité, 2023). In its basic form a CSA revolves around a cooperation between consumers and producers. They share labour, organisational responsibilities, financial burdens, and risks in exchange for a regular delivery of produce or share of the harvest (Hashimoto et al., 2019; Medici et al., 2021; Opitz, Zoll, et al., 2017; Savarese et al., 2020). Although the core concept remains similar, CSA initiatives are highly heterogeneous in their organisational forms. Harmon (2014) identifies three main archetypes of CSA: in shareholder CSAs a core group of members is responsible for the organisation and hire farmers to do the labour or instruct other members. A subscription CSA is farmer led in administration as well as production related issues, members pay upfront for a share of the harvest. A volunteer CSA is led by a board of directing members and relies on volunteers for production related work. The boundaries between these archetypes are not always clear, and there can be mixed forms as well. Therefore, it is important to differentiate CSAs from similar alternative food networks, such as food corporations. Wellner and Theuvsen (Wellner & Theuvsen, 2016) differentiate CSA from other alternative food networks through a high degree of consumer integration and consumer-based financing of the whole production process, rather than specific products, as it would be in a subscription service. This is directly related to the differences in other regulatory aspects, such as the amount of work each member has to do in a specific timeframe (e.g., required labour typically varies between zero and twenty hours per member per year).

In addition to their alternative food supply function, CSAs offer a range of benefits including economic advantages, especially for farmers (Bazzani & Canavari, 2013), transformative potential

towards better consumer-farmer relations and sustainable food sources (Brehm & Eisenhauer, 2008; Wells et al., 1999), and fostering political agency, food sovereignty and civic participation (Degens & Lapschieß, 2023; Sharp et al., 2002).

The impact of CSA membership in the Swiss food system is difficult to judge, but in 2015 approximately 60 CSAs were growing food for 10.800 to 26.000 people (Volz et al., 2016). There are no concrete membership numbers today, but in 2025 46 initiatives are listed by the two main Swiss umbrella foundations (Fédération Romande d'Agriculture Contractuelle de Proximité, 2023; RVL, 2022). While some initiatives had to close down, others have grown significantly; therefore, overall membership numbers may have remained stable.

1.2.4 Other Forms of Agricultural and Food Prosumption

While CAP strives towards reclaiming food production agency in a communal structure, there are plenty of individual forms of food prosumption, although some are not agricultural in a strict sense of the word. These forms range from passive subscription boxes or solidarity purchasing groups to more active practices including home gardening, foraging, fishing, hunting, or even near self-sufficiency.

Hunting and fishing, though legally regulated and seasonal, play a role in Swiss rural and alpine food cultures, where wild game and fish supplement personal diets with seasonal protein sources and generate income as local specialities. Other practices, often closely linked to traditional seasonal activities, such as berry and mushroom gathering in alpine or forested regions continue to have cultural and culinary significance in Switzerland (Egli et al., 2006). These diverse practices reflect a broader societal trend towards re-establishing individual food procurement into everyday life, often motivated by ecological awareness, health concerns, or a desire to re-establish a connection to seasonal and local food systems (Fonte, 2013; Kneafsey et al., 2013). This is embodied by those who take prosumption to the extreme and try to live completely self-sufficiently. While individual prosumption may lack the collective and political potential of CAP initiatives, it plays an important role in shaping more resilient and reflexive food cultures.

However, it is crucial to recognise and acknowledge that prosumption practices such as self-sufficiency, hunting, fishing, or foraging are not niche lifestyle choice in many parts of the world, but constitute essential, everyday subsistence strategies. Unlike in post-industrial contexts, where such practices often carry cultural or political meaning, in many regions of the Global South they remain fundamental means of survival, shaped by necessity rather than choice.

2. METHODS

This dissertation employs a mixed-methods research design to address the overall research questions and to explore the organisational structures, experiences, benefits, outcomes, and perceptions of different types of CAP in Switzerland. The overall research was initiated based on a Grounded Theory (GT) driven explorative approach (Glaser & Strauss, 1967; Strauss et al., 1996). Theoretical input and ethnographic field visits formed the underlying framework regarding the phenomenon of agricultural prosumption as a whole and the specific characteristics of AGs, CGs and CSAs. This approach shaped the analysis of the organisational structures of CAP types and served as a foundational groundwork for the subsequent quantitative and experimental studies.

The first study and corresponding research article (Galley, Saleh, & Bottazzi, 2025b) pairs the GT framework with institutional and organisational theory to inductively analyse organisational characteristics and their impact on the continuity of AG, CG, and CSA membership. This approach was chosen not to test a hypothesis but to develop new, empirically grounded conceptual insights into a field that remains under-theorised. Given the diversity and complexity of CAP initiatives, GT enabled an iterative, flexible research process that followed emerging theoretical signals rather than pre-set assumptions. Qualitative methods such as in-depth interviews and participant observation were essential for capturing the knowledge and embedded organisational practices that define CAP. The goal was to understand how specific organisational and institutionalised conditions shape participation and sustainability in CAP types.

The second study and corresponding research article (Galley, Mann, & Bottazzi, 2025) employs a quantitative cross-sectional survey to examine how participants in AGs and CSAs perceive and experience their involvement and how this influences their willingness to continue. This pragmatic design was chosen to map and quantify the relevance of different perceived outcomes and structural features, such as health benefits, food quality, or community ties, across a broader sample. Building on the categories developed in the first study, the second study translates qualitative insights into variables

and measurable constructs. In doing so, it connects individual-level experiences with a theoretical discussion on prosumption theory and its place in alternative economies.

The third study and corresponding research article (Galley, Saleh, & Bottazzi, 2025a) uses a between-subject experiment and a short quantitative survey to test how informational interventions regarding different CSA benefits influence public benefit perception and willingness to join. The use of an experimental design enables the analysis of CAP's broader societal relevance by exploring how non-members respond to prosumption values when introduced via targeted communication. This method allows for causal interpretation and helps clarify how external actors might come to recognise the value in CAP participation, which has implications for outreach and public policy.

Together, these approaches establish a methodologically triangulated multi-perspective understanding of CAP in the Swiss context. The second study builds directly on the inductive insights generated by the first study, complementing and, to a degree, completing its findings by testing them quantitatively across a broader population of members. The third study, in turn, draws on both earlier findings but shifts the focus outward, offering an experimental look at how CAP benefits are perceived by non-members. This combination of qualitative exploration, quantitative generalisation, and experimental testing allows the dissertation to address the phenomenon from within, across, and outside existing CAP settings. It enabled a structured yet open-ended investigation into how CAP types function, how they are perceived by those involved, and how their potential can be communicated to wider society. The methodical triangulation analysed the field qualitatively, establishing realities for members quantitatively, and explored an outside perspective of non-members experimentally.

3. RESEARCH ARTICLES

3.1 Article 1 – Growing Together – How Institutional Structures Influence Communal Agricultural Prosumption Types and their Potential for Continuity

Stefan Galley, Rita Saleh, Patrick Bottazzi

Published in: Journal or Rural Studies 116, (2025) 103625. Impact Factor: 5.7 (2024)

https://doi.org/10.1016/j.jrurstud.2025.103625

Abstract:

Communal agricultural prosumption (CAP), the practice of producing food for one's own consumption within a communal organisation is becoming more prominent in everyday life. Although there has been ample descriptive research on specific CAP types, there is a lack of a comprehensive overview of the similarities and differences in terms of the structures, rules and continuity of CAP types. Therefore, we exploratively compare three Swiss CAP types: allotment gardens (AGs), community gardens (CGs) and community supported agriculture (CSA). We collect data using qualitative Grounded Theory approach and rely on institutional theory to characterise the CAP types' institutional structures, rules and their potential in terms of continuity, as well as their perceived outcome on society. The results show similarities and differences in the perceived outcomes of these types, as well as in their individual requirements, institutional structures and socio-political agendas. Community-centred types, such as CSAs and CGs, successfully generate political agency and collective structures, yet financial barriers limit broader participation. In contrast, individual-centred types, such as AGs, provide autonomy, but impose high knowledge requirements and lack strong political leverage, which poses crucial challenges for long-term viability. To ensure the continuity of all three CAP types, we propose targeted policy and institutional strategies that enhance accessibility, reinforce inter-institutional networks, and align CAP governance with broader sustainability goals.

Keywords: Agricultural Prosumption, Community Supported Agriculture, Community Garden, Allotment Garden, Institutional Theory

1. Introduction

Public demand for shorter production chains and easy access to regional and organic produce has been on the rise in the 21st century (Ilbery & Maye, 2005; Jensen et al., 2011). In fact, some people turn their gardens or balconies into greenhouses and vegetable plots to produce and consume their own food as a way to contribute to sustainability (Mullins et al., 2021; Music et al., 2021). Individuals without access to gardening space often find the solution in gardening organisations such as community-driven gardens (Kingsley et al., 2022; Schoen et al., 2021). These individuals, whether in private or communal gardens, are producers and consumers of their own goods, which is known as prosumption (Ritzer & Jurgenson, 2010; Toffler, 1980). More specifically, their activity is considered agricultural or food prosumption (Palmioli et al., 2020; Veen et al., 2020), which is deemed crucial for building resilient, local, sustainable and community-oriented food systems.

In developed countries, including Switzerland, there has been an increased interest in the communal types of agricultural prosumption, especially after the COVID-19 pandemic, leading to a rise in the popularity of gardening institutions, manifesting in successful new foundations, waiting lists, or less membership rotation (Bieri, 2021; Busby, 2020; Meister, 2020; Shirvell, 2021). These communal institutions focus on food production and community building and empowerment (Ghose & Pettygrove, 2014; McVey et al., 2018; Ostrom, 2007). There are three major types of communal agricultural prosumption (CAP) in Switzerland: 1) community gardens (CGs) are small plots of land often adjacent to living quarters and neighbourhoods; 2) allotment gardens (AGs) are located on city-owned land, rented and administered by an association, which sublets smaller plots for individual use; and 3) community-supported agriculture (CSA) are institutions where members pay a yearly fee and might even engage in farm labour in exchange for regular produce deliveries from farmers (Hashimoto et al., 2019; Savarese et al., 2020). In Switzerland, around 10800 people are fed by CSA farmed produce in 2015 (Volz et al., 2016), whereas allotment gardens have around 20000 members (Familiengärtner-Verband, 2023). There are no official numbers for CGs in Switzerland. Additionally, the precise impact of these CAP institutions is hard to judge since members often provide produce for their family or

friends. While an individual CSA, AG, or CG functions as an organisation, each CAP type (CSA, CG, AG) is considered in this paper as an institution given their distinct structure, rules, goals and resources. However, all types operate within a broader institutional framework of CAP shaped by shared social and cultural norms, such as local food production and community engagement, which define their role and continuity potential.

Overall, these institutions give their members the opportunity to grow their own produce and build social cohesion. They are also considered important leisure activities and are beneficial in leading to healthier and more sustainable lifestyles (Farmer et al., 2017). In fact, there is ample literature from many countries that highlights the significant health, social, economic, political and sustainability-related potentials of these CAP types, such as improving the life of their members and their communities, and leading to socioeconomic change (Bendt et al., 2013; Drescher et al., 2006; Gerodetti & Foster, 2015; Medici et al., 2021; Okvat & Zautra, 2011). Additionally, some literature focuses on describing the origins and establishment of each of these CAP types (Acton, 2011; Ghose & Pettygrove, 2014; Ostrom, 2007), while other studies examine prosumers' motivations to engage in CAP (Brehm & Eisenhauer, 2008; Kingsley et al., 2019; Kirby et al., 2021; Veen et al., 2020; Winkler et al., 2019).

However, these diverse CAP types have not been explicitly compared in terms of their institutional structures, such as rules, requirements, hierarchies and organisational aspects that can be found in every CAP type. Literature has primarily focused on comparisons between singular organisations of one CAP type (Göttl & Penker, 2020; Jacob & Rocha, 2021; Lass et al., 2003; Poniży et al., 2021). An understanding of the differences and similarities between the three CAP types in terms of institutional structures and their respective functionalities and outcomes on individuals and societies is lacking. Such a comparison can help determine how the different structures of the CAP types gain legitimacy as institutions and in turn influence their expansion and continuity potential.

Thus, we aim to compare the three CAP types (CSAs, CGs and AGs) in Switzerland in terms of their institutional structures. We follow institutional theory to compare their respective organisation, structures and rulesets and how these can act as barriers or facilitators for their continuity. Additionally,

we explore their perceived outcomes for individuals and society. We collect data inductively using a Grounded Theory–driven qualitative approach based on interviews and participant observation from multiple sites in the German-speaking part of Switzerland. Our findings show that institutional theory provides a suitable framework to categorise the institutional structures of the three CAP types and show their (in)ability to align with broader institutional pressures (e.g., social and communal expectations) shaping their continuity potential as agricultural prosumption institutions. On one hand, this framework uncovers how the different CAP types exist nowadays in societies. On the other hand, it determines how the structures, rules, norms and beliefs of the investigated CAP types shape their ability to address internal as well as external challenges and influence their continuity potential.

2.Background and Aims

2.1. Overview of the CAP Types in Switzerland

Historically, gardening was an informal, subsistence-based activity, which has become increasingly organised during the industrialisation, for example due to the loss of access to gardening space for the increasing urban population (Acton, 2011). Nowadays there exist three main types of CAP institutions that are important for building a long-term sustainable food system and fostering a communal responsibility for food production and consumption. Ensuring their continuity contributes to providing a reliable source for locally produced food and maintaining communal stability.

Firstly, AGs are one of the CAPs which are closest to private agricultural prosumption (e.g., home gardens). AGs are usually city-owned spaces given to associations to organise their use as allotments. The associations then split up the area into individual allotments and hand them to their members on a lease with specific rules on what they can grow (Acton, 2011). Research shows that AGs provide health and social benefits such as reduced stress and increased social contact (Van den Berg et al., 2010; Wood et al., 2016). However, AGs existence nowadays is threatened by urban densification. The areas that AGs occupy (e.g., close to the train tracks) are becoming more suitable and attractive for construction which threatens their existence (Jahrl et al., 2022). Another problem that AGs face for their continuity

is that their plots are usually fenced off and restricted to members only, which limits their ability to provide communities with access to greenspaces (Speak et al., 2015). Interestingly, most known rules of AGs focus primarily on members' social conduct and the types of produce and plants that are allowed to be cultivated (Breuste, 2010; McVey et al., 2018). There is little literature on how AGs' structures can facilitate or hinder their continuity.

Secondly, there are two community-focused CAP types: CG and CSA. Glover et al. (2007) define CGs as '*organized initiative(s) whereby sections of land are used to produce food or flowers in an urban environment for the personal or collective benefit of their members who, by virtue of their participation, share certain recourses such as space, tools and water'* (Glover et al., 2007). These initiatives can be organized through a communal association, NGOs or governmental organisations (Göttl & Penker, 2020, p. 33). In CGs, members can either manage and cultivate the garden together or adopt an allotment-style approach with individual raised beds or small plots. However, in contrast to AGs, CGs still tend to manage these semi-private plots collectively relying on shared knowledge, tools, material and labour. Extensive literature shows the benefits of CGs in helping their members interact with each other and integrating themselves within a community or neighbourhood (Christensen et al., 2018; Porter & McIlvaine-Newsad, 2013; Scott et al., 2020; Tidball et al., 2010). Researchers also found that CGs have an impact on members' knowledge of science, nutrition, gardening and the environment, which motivates many educational organisations (e.g., schools) to have CGs of their own (Corkery, 2015; Krasny & Doyle, 2002). However, their continuity is heavily reliant on the support and interest of their neighbourhoods.

For CSA, a community-focused type, its core principle is the democratic and cooperative relationship between farmers and its members, who share work responsibilities or financial burden (Medici et al., 2021). A CSA membership entails a subscription service for food grown with the help of professionals and delivered to the members. The food delivered encompasses a wide range of food products from fruits and vegetables to eggs and meat (Volz et al., 2016). Most CSAs follow organic rulesets in their food production, enabling positive health and environmental impacts (Volz et al., 2016).

Literature further highlights positively the economic value (Bazzani & Canavari, 2013), transformative characteristics (Brehm & Eisenhauer, 2008; Wells et al., 1999) and political role of CSAs (Degens & Lapschieß, 2023; Sharp et al., 2002). However, there are many differences in the regulatory aspects between the existing CSAs such as in their membership rulesets (e.g., labour requirement from none to up to 18 h per year) and characteristics of CSAs. Therefore, general assumptions and understanding of their rules are very rare (Volz et al., 2016) but they remain similar in their goals and social norms (e.g., solidarity towards farmers, high quality produce and communal risk distribution).

Overall, the three CAP institutions share the same idea – the communal production of food – but they are different in their institutional goals and rules related to this food production, with even more variation in how they are organised. Knowledge of what their rules and requirements beyond food production are, is lacking. Understanding their institutional structures is crucial for assessing their impact on continuity.

2.2. Institutional Perspectives on CAP

Institutional theory examines how rules, norms, and structures shape social, economic, and political behaviour. It explains why organisations and individuals conform to established frameworks, how institutions evolve and how they influence long-term societal transformations. Institutions can be formal (laws, policies, regulations) or informal (customs, cultural norms, collective beliefs) and they provide stability and predictability to human interactions (North, 1990; Scott, 2005). In sustainability science, institutional theory helps explain the persistence of unsustainable practices and the challenges of transitioning to alternative systems, such as sustainable and equitable food systems. It highlights how institutions enable or constrain change, whether through policy frameworks, market mechanisms, or social norms (Ostrom, 1990; Young, 2002).

Through institutional theory we are able to categorise the structures, norms and rules of each CAP type and explain how they exist in their current form and how these structures influence the CAP institutions' behaviour, adaptability and thus its continuity. In this paper, institutional theory provides a

framework to analyse how CAP institutions adapt to challenges, and navigate isomorphic pressures (Powell & DiMaggio, 2012). In order to survive, the CAP institutions need to meet specific institutional expectations, which are not related to their (economic) performance, but rather characterised by social norms and cultural specificities. These institutional expectations lead to the adoption of "*templates for organising*" (Powell & DiMaggio, 2012), socially accepted forms of organising, and to the process of "*isomorphism*", where similar institutions take up similar organisational forms in order to meet these institutional expectations (Powell & DiMaggio, 2012). Normative isomorphism for example arises from professionalisation of knowledge and shared values, leading institutions to adopt similar structures based on sector-wide expectations, while mimetic isomorphism occurs when institutions or even singular organisations are facing uncertainty imitate established models perceived as successful (Powell & DiMaggio, 2012).

Interestingly, Scott (Scott, 1995, p. 59) identifies a regulative, a normative, and a cultural-cognitive pillars as a base of every institution. These pillars define if rules, norms or common belief systems are the main influence on institutional behaviour, structure and continuity. While his concept is regarded as one of the classic works within institutional theory, it is paramount to acknowledge that institutional structures are not static but rather influenced through ongoing interactions between formal rules and informal practices (Greenwood et al., 2017).

To understand the continuity potential of institutions, it is important to analyse their ability to adapt their structures in response to external challenges or internal dynamics (Greenwood & Hinings, 1996). Battilana and Lee (2014) found that hybrid institutions, which are understood as social enterprises incorporating economic or environmental aspects, face continuity challenges as they often do not fit the established expectations for regular institutions (Ruef & Patterson, 2009; Zuckerman, 1999). Similarly, CAP institutions are hybrid, and they need to find different ways to gain the approval of certain actors who could give them access to important resources (Kraatz & Block, 2008). In addition to these external struggles, these institutions face internal challenges which threaten their continuity, such as the creation of a common identity and finding a balanced path between social and economic interests in everyday

business as well as in the long term (Battilana & Lee, 2014). Furthermore, literature shows that an organisation flexibility and hierarchical systems (Battilana & Lee, 2014), networks (Powell & DiMaggio, 2012), resources and even formal and informal rules (Battilana & Lee, 2014; Greenwood et al., 2017) can help address the external and internal challenges which impact their continuity. These findings imply that understanding the hybrid structure of CAP institutions is paramount to understand their potential for continuity.

All in all, institutional theory can be adapted to specific contexts and questions within diverse organisational settings. It helps to gain insights into how institutional structure supports organisations in adapting to external and internal challenges. It has been prominently applied to investigate how regulations influence the organisation of industries (Peters, 2019), shape structures in educational institutions (Cummings, 2003) and in collaborations between non-profits and governmental bodies (Mintzberg, 1989). Within the topic of agricultural prosumption, this theory has not been operationalised before, although an institutional perspective can be relevant, especially in understanding the rural areas which are characterised by enduring agricultural structures (e.g., historic land use patterns, traditional agricultural practices, well-established governance systems). However, they can still struggle to adapt to economic or political challenges (Atia et al., 2023; Battilana & Lee, 2014; Mesek et al., 2024) and are often highly dependent on a network of linked organisations for resource access and visibility (Bonfert, 2022b; Powell & DiMaggio, 2012). Institutional theory showcases these issues when analysing a rural or urban CAP organisation and helps to understand the problems and struggles CAP faces and how institutional structure impacts an organisation's continuity potential.

2.3. Research Objectives

It is unclear what the rules, requirements and structures are within each CAP type. With the present study, we want to identify, understand and compare the institutional structures of the most common Swiss CAP types (i.e., CSAs, AGs and CGs) and to discuss the problems and opportunities for their continuity. More specifically, we examine the following questions.

- What are the key institutional structures of the three CAP types and how do they differ from each other?
- How do the institutional structures of the three CAP types impact their ability to adapt to internal and external challenges?

Our first objective was to identify and compare the norms, rulesets, socio-political agenda, as well as the perceived outcomes of the three CAP types, which we consider as institutions. Examining how their institutional structures shape membership requirements, engagement, the decision-making processes and other institutional aspects, allows us to analyse how they exist in their current form and which structures act as barriers or facilitators to the uptake and the continuity of every CAP type. Our last objective was to give recommendations to improve the continuity potential and resilience of CAP institutions in Switzerland. Solidifying the position of CAP in our society has positive implications for ensuring food security and fostering a more sustainable mindset towards food production and consumption in adjacent communities and societies.

3.Methods

3.1. General Approach

We chose a qualitative approach to address our research questions to ensure a contextualised understanding of the different agricultural prosumption types in Switzerland. We relied on Grounded Theory (GT) (Glaser & Strauss, 1967) since it allows examining a new social phenomenon both systematically and thoroughly. Another advantage of GT was that it allowed us to derive new theories about the phenomenon in question inductively (Strauss in Legewie, 2004, p. 58). Therefore, we employed GT to first identify the key elements of the different agricultural prosumption types in Switzerland, and second, to categorise the relationships between the found elements based on the context and processes of the CAP types. Based on Strauss's (Strauss in Legewie, 2004) GT approach, we focused on theoretical sampling, theoretical coding and comparisons (Strauss in Legewie, 2004, p. 59).

3.2. Sampling and Data Collection

Theoretical sampling refers to choosing data sources based on the theory and the elements that emerge after each round of fieldwork, preliminary analysis of data and theoretical reflection (Legewie, 2004, p. 59). First, we selected the CAP sites to visit based on the aims of the study. We examined the main features (e.g., organisational characteristics, administration requirements, relationships and interactions between members) of the CAP type. After the first two field visits, we evaluated our initial data (i.e., observations and informal conversations) and found relevant elements of CAP emerging such as organisation size (small, medium and large) and location (urban, semi-urban and rural). Following these elements, we then chose our subsequent sites to visit. We repeated the process of evaluation for every filed visit and adjusted the sampling accordingly. This technique enabled us to examine the complexity of the CAP types while accounting for spatial and establishment differences of the CAP organisations. Our final sample consisted of eight organisations under the CAP institutions. More specifically, there were two CGs, four CSAs and two AGs from the German-speaking part of Switzerland (cf. Table 1).

Table 1: Main characteristics of the investigated CAP types

CAP organisations	**Main characteristics**	**Approximate number of members**	**Number of in-depth interview (IDI) and participatory observation (PO)**
AG1	Large, traditional, historically grown, fenced off plots	2,100 members distributed between multiple sites in the city	3 IDI
AG2	Midsized, plots without fences, relatively new	1,800 members distributed between multiple sites in the city	3 IDI
CG1	Focus on neighbourhood improvement, community led	60 members	1 PO, 3 IDI
CG2	Focus on integration, backed by church-organisation	30 members	1 PO, 3 IDI
CSA1	Urban, well established, successful, large	400 members	2 PO, 3 IDI
CSA2	Semi-urban, well established, successful, large, old	400 members	1 PO, 3 IDI

CSA3	Rural, well-established, midsized	180 members	1 PO, 3 IDI
CSA4	Rural, new, small	80 members	1 PO, 2 IDI

We primarily conducted semi-structured, open-ended interviews with presidents or members of the organisational committees of CSAs, CGs and AGs, as they would provide us with accurate information on their organisational structure, membership requirements and rules. The interviews started with general questions about the organisation, such as its history or size, in order to start a conversation. We made sure to include the following topics, in case they were not raised naturally: the internal structure of the organisation, the membership requirements, the rules of gardening and continuity difficulties faced by the organisation. To ensure comparability of the results between the three types of agricultural prosumption, we examined the same aspects of interest in terms of structure and perceived outcome with the interviews. To avoid confusion, well-known terms like *'gardening'* were used in the interviews instead of *'agricultural prosumption'*.

In addition, we complemented the interviews with participant observations (Aktinson & Hammersley, 1998) at CSAs and CGs, including informal conversations with the members on site. During the first author's observations at CGs and CSAs, he participated in the organisations' workdays and members' assignments. He observed the way the work tasks were explained, distributed and carried out, how knowledge was transmitted from experts to newcomers and how communal aspects came into play. Observations were noted through field notes and voice memos and then completed in observation reports. As for AGs, we did not conduct participatory observation because the spatial separation of plots and different gardening times made it difficult to observe any interactions within AGs.

The first author carried out all the interviews and observations. The role of the researcher was openly communicated, and oral consent was given by all participants. The impact of the researcher's presence on prosumers' behaviours was minimised through participating in the gardening work. To limit biased interpretation of the data, the researcher reflected on his attitudes and thought processes on a regular basis through three main techniques (Breuer, 2009). A research diary was maintained through the entire

research process, in order to document reflections on the data. Retrospective self-confrontation and reflexion was used to identify personal biases and assumptions. Lastly, regular discussion with colleagues and co-authors provided external feedback to foster critical insight into the data interpretations.

First, we investigated CGs. We chose CG1 for its aim of improving the local neighbourhood community. We then chose another CG with a different objective to obtain a bigger scope of the existing CGs in Switzerland. Therefore, we selected CG2 that focused on integrating refugee women into Swiss society. At both CGs, we participated in a full workday and conducted an in-depth interview with the organiser, as well as informal conversations with three members. Both CGs were situated in midsized Swiss cities (cf. Table 1).

Second, we examined CSAs in both urban and rural settings. We participated in two initial work assignments in two urban (CSA1, CSA2), large (around 400 members) and well-established CSAs. We visited CSA1 first, which is located close to a thriving quarter with many projects, schools, retirement homes and new residential buildings. Additionally, to evaluate the possible influence of geographical location, we visited CSA2, one of the oldest CSAs in Switzerland, situated on the edge of a large city's suburb and reachable by public transport. As for the rural setting, we visited two CSAs situated between two midsized cities and held interviews with leading figures, such as the presidents as well as board members and involved farmers. CSA3 is well-established, accessible by car and had roughly 120 members, while CSA4 is newly founded in a rural area surrounded by small villages. In addition to the informal conversations, we held interviews with three members of each CSA, except CSA 4 where only two members were present due to external circumstances (cf. Table 1).

Lastly, for AGs, we started by interviewing two AG presidents from different city-wide allotments gardens. We interviewed the president of AG1 which is a large traditional Swiss allotment garden in a midsized city (2600 members in 12 locations). It displays individual, clearly separated and mostly fenced-off plots. Given that some AGs have no fences between the plots, we decided to conduct a second interview with the president of AG2, which a less traditional and smaller AG in a second mid-sized city

(1100 members in 17 locations). This AG has low paths separating the allotments and is open to the public and contains communal areas. We then conducted four additional interviews with members of AG1 and AG2. In total we interviewed six AG members (cf. Table 1). All of them possessed extensive experience in managing AGs and gave insights into other AGs' structures.

Overall, we note that within the sample we had, we covered all elements of the major themes relevant to the purpose of our present study and no new elements emerged, indicating that we reached saturation with our data regarding the rules and structures of the CAP. Table 1summarises the basic characteristics of the three examined CAP types and includes information on the respective data collection methods.

3.3. Data Analysis

Our data consists of transcripts of audio recordings, field notes, vocal memos and observation reports. We used MAXQDA (VERBI, 2022) to code, visualise and compare the data collected from the observations and interviews. In accordance with our GT approach, we achieved theoretical coding through open, axial and selective coding.

During open coding, we identified major concepts and compared the similarities and differences among the investigated CAP types (Strauss et al., 1996, p. 54f). Subsequently, during the axial coding, we connected the already developed concepts and built categories and sub-categories given their contexts (Strauss et al., 1996, p. 76). Lastly, in the selective coding, we built two key categories (i.e., "barriers and facilitators" and "perceived outcomes") within our theoretical framework, after identifying the relationships between the different categories (Strauss et al., 1996, p. 95).

4. Empirical Results and Key Findings

"Barriers and facilitators" category (cf. Table 2) refers to factors related to the structures and requirements of the CAP institutions. These factors are identified on the individual, institutional and socio-political level. At each level, the factors can act as either a barrier or a facilitator of continuity of

the CAP institution, depending on the context, the CAP type or even the personal preferences of individual members. The second key category is "perceived outcomes" (cf. Table 3), which refers to the impacts of the CAP type's structure on the individual and social levels.

4.1. Barriers and Facilitators

4.1.1. Individual Level

On the individual level, we identified membership requirements which can act either as a facilitator or a barrier for the CAP continuity, since ensuring a stable membership is vital for every institution type (cf. Table 2). Within these, there are strict requirements which have to be met by interested actors to join an institution such as membership costs, knowledge, time and workload.

For the AGs and CGs we examined, the membership fees are low, and active members can produce food for the invested money (rent and membership cost range from 100 to 300 Swiss francs per year). AG2's president stated that particularly migrants benefit from AGs in putting food *'on the plate'* for themselves and their extended family. In CSAs, the cost factor can act as a barrier. CSA memberships consist of one or more share certificates (around 250 Swiss francs each) and a subscription fee for different sizes of produce shipments, averaging around 800 Swiss francs a year. We found that all CSAs in the sample indicate that the costs deter some people from joining and often restrict CSA membership to financially well-situated families. Nevertheless, we observed that all CSAs try to tackle these issues. '*We want solidarity also in the price – we* support *low-income earners with funds*' (Founder of CSA4). These funds are raised through higher voluntary fees for high-income earners. CSAs also require low time commitments and workloads (around 18–20 h per year), unlike AGs and CGs, which are time-consuming, as one has to take care of the cultivated plots nearly every day, as a member of AG2 told us. While specific workloads in CSAs are part of the membership contract, the time spent in AGs and CGs is not regulated formally. AGs rather regulate workloads through the visual expectations they have for individual allotments, often fixed within the membership contract and controlled by the organisational board. The CGs we visited do not have such contracts but rely on social coherence for

upholding their norms and rules. The different time and workload requirements can therefore act as a barrier, due to potential time constraints, but also as facilitators, by creating a regular activity for their members. The last requirement for joining a CAP activity is knowledge. We observed that prosumers need the least knowledge in CSAs, while more specific knowledge is needed to be successful in CGs and AGs.

4.1.2. Institutional Level

On the institutional level, the CAP types have different institutional characteristics, regulations and structures (cf. Table 2). The first factor we identified is the location of the organisation and the available public transport around it, which we refer to as geographic accessibility. The AGs and CGs we visited are located in urban to semi-urban spaces making them easily accessible, which is paramount since both types require regular care. Since CSAs are managed by professionals, their members experience flexible workdays in which they sign up for specific work assignments. This system enables CSAs to function in rural areas with limited accessibility. Nevertheless, some CSAs also operate in urban areas, which allows for more community interaction and shorter supply chains. CSA1, for example, was adjacent to large living quarters and was able to deliver their produce to pick up stations by cargo bikes. CSA3 was situated between two cities without a good connection to public transport. Members only came together regularly for workdays and did not use the CSA as a community space. The members were aware of this disadvantage and were trying to find a space closer to the city. In all three types we observed that easy access was valued by the members, who could then spend more time in the garden or with the community.

Visibility is also important for an organisation to find new members. It is closely linked to the geographic accessibility but also refers to social aspects that ease access to such institutions. CGs are highly visible within their neighbourhoods. We experienced CGs to be open, welcoming and communicative, especially with potential new members through providing informational boards and being easily approachable for questions. Both CGs we visited had multiple informational boards and

members expressed that they regularly interact with interested pedestrians passing by: *'There are many conversations over the garden fence'* (CG1). The CSAs we looked at are also highly visible but often rely on digital marketing strategies such as social media and well-developed and appealing websites, created and managed by professional IT personnel, as in CSA1. However, the fenced-off AGs we visited lacked the openness of CGs' and CSAs' advertisement schemes. They had outdated websites focused on the needs of their existing members as the president of AG2 informed us: *'We get the base structure [of the website] from the federation, but we have to fill it ourselves […] that is [the website] not as important for us so far, it works, so it should be okay'*.

The organisational structure of a CAP (i.e., how the CAP types are organised) is the third factor identified, and it differs between the three types as they have varying structures and hierarchies. CSAs are transparent, flexible and democratic. Regular members vote on important issues at a yearly assembly and those elected to be in the leadership make everyday decisions. This generates a flat hierarchy. Hierarchies in the investigated CSAs are structured through the organisation and are based on the various available skills (gardening, organisational, technological, etc.) and motivational levels making them highly flexible. At the work assignment in CSA1, the person who should explain what to do was late, therefore the member with the most experience took over to delegate what to do, portraying a flexible hierarchy based on experience. CGs share some of the organisational aspects of CSAs (e.g., democratic assemblies and leading administrative figures) but differ from their economic requirements since CGs are not required to generate a profit. Participation in organisational progress is possible for every member and most decisions are made democratically, although the leadership will make some decisions on their own, as the leader of CG2 informed us. Hierarchies are flat and based on gardening skills. AG leadership, although democratically elected, often consists of retired persons, senior citizens or older long-time members. Through our interviews we found out that the tendency for older administrators is mainly due to the time demands of these positions and possibly routed in the shared cultural values within this age group. The president of AG2 admitted that the managing committee is not always *'ideally staffed'*, because for example they lack IT skills or are even prejudiced towards minority groups. A

member of the organisational board in AG1 told us *'Getting new people in it is always difficult, we ask around every year, and include information in our newsletter which jobs are open, but there are nearly no replies. You have to be happy to get someone to look over the books, which are two nights* per *year – no one wants to offer up their free time anymore […]'.* New members can hardly get involved in these processes or change the structure of the organisation mostly due to the time constraints. AGs have therefore an inflexible, steep hierarchy, which is mostly based on experience or membership duration.

The fourth factor, institutional monitoring, can be found in all three types. AGs have restrictions on gardening and often govern the social aspects of their members through rules. For example, the "*Mittagsruhe*" (a noise restriction during noon) or guidelines for the tidiness of allotment are part of the official regulations. These restrictions are controlled by a specific member of the executive board who walks through the allotment and can talk to the deviant gardener or even issue citations. If gardeners follow the rulesets, they can garden to their liking, regardless of the agreement or disagreement of their neighbours, as we have heard in AG1: '*The overseer can try and talk to the guy to be neater, sometimes it works, sometimes not'*. In CSAs, we observed that the professionals monitored every produce-related activity the other members did. In addition, they gave out specific orders on how the work must be carried out. One professional in CSA2 even stated, '*Trust is good, monitoring is better*'. In CGs, we had not observed such close monitoring, neither through peer-to-peer, nor through the experts. The members had the possibility to ask for help but were free to experiment for example with the choice of crops or different cultivation methods. CGs often attract gardeners who express themselves freely, creatively and individualistically. A female, long-time member of CG2 expressed herself creatively in her plot by expanding her raised bed and repurposing old plastic bags as pots, to the dislike of the other members who saw her plot as a mess. Since there were no rules against her behaviour, she carried on her style of gardening without hesitance. This self-expression could also be seen in AGs but was not tolerated in CSAs due to the importance of every work step for a successful harvest.

The fifth institutional factor we found was labour-related. The CSAs in our sample employed two main measures to ensure good working conditions. First, they had a high division of labour, lightning

the workload for the members and encouraging them to partake in social activities (e.g., communal lunches, on-farm meetups). Second, this division was based on the available skills to profit from every member's specific talent. A pensioner in CSA2, with extensive knowledge of fruit- bearing trees, spends all his required work hours and some voluntary ones, pruning and cultivating the CSA's trees. Although CGs also tried to source their talents, they had a low division of labour and were not as successful as CSAs. At AGs, there is nearly no institutionalised division of labour or talent sourcing. Therefore, members needed to complete their work on their own or organise help for themselves, similar to the president of AG1 who has '*some close friends who take care of my garden while I am away'*.

The sixth factor is the differences on the inter-institutional networks of the CAP types. The investigated CSAs were well-connected to other CSAs and to like-minded institutions and even city administrators. At an organisational meeting of CSA1, the importance of such networks became apparent as the city administration handed over a new patch of land to CSA1 to turn into farmland. The visited CGs were well- established within their quarters and could rely on their organisational bodies, which are NGOs or the church. We also found that CGs try to stay connected. For example, CG1 regularly visited other CGs in Switzerland to connect, get new perspectives and best learn practice approaches: *'Every year we have an excursion […] to see how other [gardens] do it and how they solve problems'* (CG1). AGs rarely have local agricultural prosumption-related networks. Instead, they are found to be organised through the national organisation, which they rely mostly upon for organisational assistance (e.g., membership contracts, administrative help). The president of AG2 admitted that *'it is already hard to find volunteers for the work [at the organisation], it is even harder to find people who do networking'*.

4.1.3. Socio-Political Level

On the socio-political level (cf. Table 2), we categorised the three CAP types on a scale between traditional and non-traditional institutions. The AGs in our sample are traditional in their institutional structure with their main purpose being to grow vegetables and flowers. Accordingly, plots or

membership in an AG are often passed on within the family, as was the case for the president of AG1. In comparison, we observed that in CGs and CSAs, politics play a large role. CG1 and CG2 are linked with a local political agenda, aiming to improve a neighbourhood or foster refugees' integration within a community respectively. CSA members are rather engaged in a more global political agenda focusing on agricultural change, urban food sovereignty and sustainable transformation. This engagement became apparent when we found stickers, leaflets and other informational material regarding agricultural change and just transition in CSA1 and CSA2. In addition, these CSAs offer regular talks or presentations regarding these topics and use their premises for cultural events, which are open to members and the public. We also observed that prosumers in CSAs were often highly educated, left leaning and ecologically conscious individuals, which was reflected in the institution's agendas. It was, however, unclear whether the members' characteristics presupposes the political agenda of the CSA or vice versa.

Table 2: Barriers and facilitators to the continuity of the different types of CAP on the individual, institutional and socio-political levels

	Factors	AGs	CGs	CSAs	Relevant for all
Individual Level	**Membership requirements** (cost/ time/ workload/ knowledge requirements)	Mid-cost/high time/high workload/high knowledge	Low-cost/high time/mid workload/mid knowledge	High-cost/ low time/ low workload/ no knowledge	General interest in gardening and community
Institutional Level	**Accessibility and Visibility**	Easy access within city	Easy access within neighbourhood/info signs/inviting	Easy access within region/ online visibility	Prosumers need to know of organisation and how to join
	Organisation	Traditional/ closed/ inflexible rules	Community-centred/flexible rules/mostly democratic	Flexible/ transparent/ fully democratic/ professionally organised garden	Administration done by members on voluntary basis

	Hierarchy	Highly hierarchical/(experience-based)	Flat (skill- and position-based)	Flat (skill- and motivation-based)	
	Rules	Formal for gardening and social context	Mostly informal rulesets	Formal for organisational/ informal for social contexts	Formal rules can be sanctioned by organisation.
	Monitoring (Gardening/ social)	Social monitoring	No strict monitoring	Professional monitoring	
	Labour (Division/ sourcing of talents)	No division/ no sourcing of talents	Low division/ some sourcing of talents	High division/ extensive sourcing of talents	
	Inter-institutional networking	Country-wide network – only organisational	Well-embedded locally and through NGO	Well-connected to other CSAs and similar institutions, often city administration	
Socio-political Level	**Socio political factors** (Tradition/ political agenda)	Highly traditional/ no political agenda	Not traditional/ communal local political agenda	Not traditional/ global and local political agenda	

4.2. Perceived Outcomes

4.2.1. Individual Level

One individual perceived outcome found in every activity is the high level of knowledge and competence (cf. Table 3). The prosumers we talked to are knowledgeable with gardening, ecology, biodiversity, resourcefulness and the usage of technologies (mainly in CSAs) but also in regard to their social skills. A striking example of this was the president of AG1 who over the years had collected extensive knowledge on how to build up a functioning ecosystem within his allotment to reduce the use of pesticides though beneficial organisms. An experienced member of CG2, who helps with supervising newcomers, informed us that she had learned all her knowledge within the organisation. In addition, we have met multiple members of CSAs who had no connection to agriculture or gardening and are now

able to tend to a full balcony garden as well. The differences among the CAP types can be found in the way the institutions pass down knowledge. Although all AG locations we visited offer courses on specific topics, five out of six interviewees noted that members do not to access this help. The interviewees told us that most members use the internet and gardening books to educate themselves, if necessary. In CGs, we have observed that highly experienced members will support newcomers, thus lowering the knowledge requirements and emphasising community interactions and teachings. For example, in CG2, an older Swiss lady taught Somalian women her gardening techniques. At CSAs, we observed how members got an accurate explanation of every task before they started their work. They encouraged self-teaching and group learning activities through regular talks, courses, openly accessible bookshelves and informative websites. A characteristic of CSAs is the transmission of knowledge through a snowball-like system, where the professionals taught the regular members, who in turn could educate newer members. We have also seen this type of teaching in CGs, but all visited CSAs have institutionalised these systems. In addition, we observed that CSAs were raising awareness about moving away from large-scale agriculture towards sustainable, small-scale and community-driven systems through their pamphlets, thematic presentations and cultural events.

All the interviewees stressed the impact of their engagement in agricultural prosumption on the sustainability of their lives. A young mother of two children in CSA2, for example, mentioned that she joined the organisation to gain access to regional, organic vegetables to live a more healthy and sustainable life. The leader of CG1, said: *'[Gardening] is also about health, psychological and physical, you spend a lot of time outdoors, you move and have more contact to others'.* The president of AG1 also stated that he regularly *'recognises how much better your own vegetables are compared to the grocery shops or large-scale farmers'*. We noticed this positive evaluation of the self-grown produce even when vegetables were damaged or oddly shaped, particularly in CSAs, and even when pesticides and fertilisers were used, as is the case in some AGs. CSA and CG members indicated that they try to increase resource efficiency for example by repurposing one-use plastics.

Self-expression is another important perceived outcome highlighted by the interviewees. While the institutional structure of CSAs enables self-organised projects (e.g., beekeeping in CSA2), AGs and CGs with individual plots allowed their members to express themselves directly and creatively through their gardening. They could choose what to plant, customise their plots and find their own gardening practices. Multiple members of CG2 expressed their enjoyment of having their own raised bed where they could focus on the aesthetics of their gardens, select crops to cultivate and even grow crops from their countries of origin (CG2). This self-expression was only limited by the varying levels of regulation of each organisation. The president of AG2 stated, *'Some only want to plant vegetables, but flowers need to be done as well […] sometimes we [the administrators] need to fight for it to look a little more friendly from the outside, that has to be a part of it.'* She stressed that their members are free to choose how and what to grow, as long as it is within their rulesets of having a percentage of flowers to keep up a friendly appearance in the city.

4.2.2. Societal Level

Community building was one important societal perceived outcome. AGs produce spontaneous communities often based on established connections between members. Groups consisting of mostly homogeneous members are formed, for example concerning their ethnicity and age. '*They [the members] have a lot of contact between each other, we can say the Italians for example, or the Portuguese have more contact within their groups […] this did not start in the allotment, but because they know each other, and can talk to each other in their language'* (President AG2). A similar experience was mentioned by AG1: *'There are these clans, with maybe 4 or 5 allotments close to each other, on one occasion they sit in one garden, then in another and so on, that is a nice thing, the social part exists here'*. This phenomenon was also present in the other AG locations. CGs aim to expand their network outside the institution by improving the local community where the groups mirror the characteristics of the neighbourhood. CSAs manage to establish a strong community locally and nationally by working together and sharing experiences. The members of these communities are very

homogenous throughout the different organisations regarding their political stances and attitudes towards food and sustainability. One similar way of building a community we observed is the sharing of food. For example, African specificalities are shared at CG2 and fresh produce is shared at lunch break with other workers at CSA2.

Table 3: Perceived outcomes of the structures of the CAP types on the individual and societal levels.

	Factors	AGs	CGs	CSAs	Relevant for all
Individual Level	**Knowledge and Competence** (learning effects)	individual learning	group learning and mentoring/social competence	mandatory mentoring/ group and individual learning encouraged/ agricultural change	Gardening, ecology, biodiversity, technologies and resourcefulness
	Promoting sustainability and healthy lifestyle	Not institutionalised	Partly institutionalised	Highly institutionalised	All give individual chance to become more sustainable and healthier
	Chance for self-expression	Highly institutionalised	Partly institutionalised	Little institutionalised	The more individual focus, the higher the self-expression
Societal Level	**Building Community**	Spontaneous, local, in-groups or "clans" formation Generational change	Local, mixed groups, impacting neighbourhood	Strong, local, mixed, but also on a global scale	Community building through sharing food

5. Discussion

In the present study, we aimed to determine and compare the institutional structures and perceived outcomes for the three CAP types (i.e., CSAs, AGs and CGs) to explore their ability to adapt to challenges and understand how their structures impact their continuity. The data shows that all three types have positive perceived implications for community building and promoting sustainable and

healthy living, which is in line with literature (Alaimo et al., 2008; Amsden & McEntee, 2011; Lake et al., 2012). However, the comparison revealed that these agricultural prosumption types, despite having the same goal of producing food for their members' own consumption, differ greatly within their individual requirements, institutional structures and political agendas. These differences are rooted in each CAP type's purpose, main function and expectation. They highlight how the types' organisational adaptability and institutional resilience respond to internal and external challenges (Greenwood & Hinings, 1996).

AGs are characterised by well-regulated frameworks regulating the usage of the allotment and members' social conduct, and can be considered a regulative institution (Scott, 1995). Results show that these rules are sanctioned through official channels and are enforced through internal processes or, in certain cases, by external actors such as city authorities. The implementation of the rules is rooted in AGs' historical background as an administrative top-down response to offer greenspaces to the urban working class. The longevity of this type coupled with coercive isomorphic pressure has reinforced the formalised rulesets, reflecting their legacy as 19th century public welfare projects (Acton, 2011). While these frameworks establish stability and structure in AGs, they introduce certain limitations. Fixed rulesets, as well as the high knowledge and workload requirements inhibit the ability of AGs to react to change (Palthe, 2014). Nevertheless, the high level of self-expression and individual gardening practices within AGs enhance the individual's engagement, thus fostering continuity. Because of this individuality and without adherence to specific cultural norms, AGs could be places for the integration of migrants and disadvantaged groups, enabling them to grow food, to support their livelihood and stay connected to their cultural origin. However, the institutional focus can also lead to the formation of "*clans*" or language-based groups instead of an inclusive community. AGs' lack of an embedded, larger political agenda within their rulesets, limits their ability to adapt to wider community needs and advocate their role in society. Without a collective political voice, AGs may struggle to find external political support, impacting their visibility, resilience and long-term continuity. AGs rigidity is fortified through the isomorphic pressure and history, reflected in their organisational similarity to other structured civic

foundations such as sport clubs. This emphasises their inflexible, regulated institutional structure which creates barriers for younger members who struggle to get access to the administrational roles. The hierarchical structures further impact AGs' adaptability in the quickly evolving urban context.

CGs tend to be primarily a normative institution. Their ruleset relies heavily on normative principles and values enforced through meeting expectations of other members. Social pressure is used to achieve the appropriate behaviour of members, which is in line with a normatively legitimate institution (Scott, 1995, p. 64). The normative structure leads to a more flexible hierarchy and open structure of organisation, especially in comparison to AGs, making it easier form members to influence decisions and adapt to changing group dynamics. Furthermore, the low financial, time and knowledge requirements, paired with their high accessibility and visibility within a neighbourhood, lead to membership diversification (Göttl & Penker, 2020). The inclusive environment and high membership engagement promote their continuity. In addition, CGs exhibit an institutionalised political agenda, focused on creating local communities, which resonates with members who share similar values. While we have seen that specific agendas can differ (e.g., integration of refugees, enriching the neighbourhood), they remain a unifying element, portrayed outside the institution as well as internally to members, for example through informational boards. The flexible organisational and institutional shape allows CGs to react and adapt to local and socio-political changes, which in turn improves their continuity.

CSAs exhibit multiple traits of cultural-cognitive institutions, such as the core values of solidarity and sustainability. Previous findings show that they are highly constitutive as they ground their rules in common beliefs of solidarity and food quality (Medici et al., 2021; Volz et al., 2016). Although CSAs have the highest financial barrier of the three types, therefore excluding certain disadvantaged groups (Cotter et al., 2017; Galt et al., 2016), their low time and knowledge requirements in combination with the snowball-teaching system make CSAs more accessible to potential prosumers. This inclusivity contributes to CSA's continuity potential, especially towards those who might face barriers in AGs and CGs. CSAs' democratic and flexible structures enhance their adaptability (Battilana & Lee, 2014).

Members have multiple institutionalised processes to participate in decision-making and administration, making CSA adaptable to internal and external challenges. CSAs are also successful in rallying their members behind a common cause (Bonfert, 2022b; Nettle, 2016), thus giving them political agency and a unifying sense of purpose. Membership engagement is strengthened through these shared goals and values, which in turn reinforces the institutions' resilience. The flexibility and adaptability to challenges, paired with the high membership engagement and low time, knowledge and workload requirements enable CSAs to react quickly and efficiently to external changes or internal dynamic shifts.

Due to the threat of urban densification on green spaces available for urban agriculture (Haaland & van Den Bosch, 2015), all CAP types need to be involved in political decision-making to ensure their continuity (Hashimoto et al., 2019; Hofmann et al., 2016). Our explorative comparison reveals that the problem of continuity is specifically relevant for AGs. Jahrl et al. (2022) revealed that CGs are favoured by Swiss city planners over AGs due to the formers' smaller space requirements, higher membership potential and social cohesion possibilities. AGs thus can struggle to keep their relevance for policymakers if the space they occupy is needed and if they are judged to have fewer positive contributions to the city than their alternatives (Jahrl et al., 2022). In addition, AGs seem to lack the inter-institutional connections of CGs and CSAs. The latter are linked to different local and global institutions (e.g., city administrators, NGOs, other CAP institutions) which help them find political allies in the region to effectively communicate their potential to local governments and ensure thus their resilience and continuity (Bonfert, 2022a). Furthermore, this networking allows CSA and CG to grow following normative or mimetic isomorphism, which leads them to imitate existing successful value-driven models and their response system to challenges (Powell & DiMaggio, 2012).

Similar effects can be seen if we look at the community building within the three types. Whereas AGs establish small internal communities, CSAs and CGs establish them inside and outside the institution to different degrees. They can therefore be considered as being more inclusive and open to outsiders. It is important to examine how and if AGs could adopt some of the adaptive strategies of CGs

and CSAs to react to external and internal challenges in order to ensure their continuity, whilst maintaining their characteristics and identity.

6. Limitations and Future Research

The present study has three important limitations. First, we investigated CAP in the German-speaking part of Switzerland. Future research should investigate whether the geographical and cultural differences between the French-, Italian- and German-speaking parts affects the continuity of CAP. Second, we examined only CAP types and excluded private agricultural prosumption activities, namely home gardening, which has gained momentum since the COVID-19 pandemic (Kingsley et al., 2022). By identifying which and why prosumers are engaging in either home gardening or CAP, we can determine other individual or situational barriers that need to be addressed to ensure the continuity of the CAP types. Lastly, we experienced saturation within our sample in terms of identification of the rules and requirements of the three CAP types. However, our data does not allow for a comparison between the perceptions of the interviewees on aspects such as their motivations and experiences as these aspects are subjective and prone to changing from one individual to another. Future research should identify the most important motivational factors and experiences of prosumers across the different agricultural prosumption types to gain a holistic understanding of what impacts their continuity. Further consideration could also be given to the commonalities between the types, focusing on the question why these three distinct types evolved in the first place.

7. Conclusion

Our analysis shows that while all three CAP types share common goals, their different individual requirements, institutional structures and their socio-political agendas seem to impact their potential to adapt to challenges and consequently their continuity in different ways. AGs, with their fixed and regulative structures, foster individuality but limit flexibility, additionally they are at risk when they lack networks and fail to secure external political support. Whereas CGs and CSAs, are successful in

generating community engagement and involving their members within their political goals. Their democratic processes lead to a high adaptability to external and internal dynamics. Their shared political goals and values, paired with their networks enhance their resilience as well.

Our findings underscore the importance of institutional adaptability in CAP continuity. To strengthen resilience, we propose three key interventions:

First, inter-institutional CAP networks are crucial in fostering mimetic and normative isomorphism and need to be supported in their establishment and their continuous operation. This would enable an exchange of best practices, specific knowledge and institutional structures. Through mimicking specific aspects of CSAs and CGs, AGs could strengthen their societal presence and thus gain more political agency. They could then demonstrate their unique strengths more effectively such as their high potential for self-expression, their integrating capacities and low economic barriers (Speak et al., 2015).

Second, urban planning policies need to provide accessible and visible spaces for CAP as a vital part of urban green infrastructure to ensure their continuity as well as improve on their strengths such as the high community building potential of urban CSAs.

Third, policy mechanisms such as tax benefits or state-supported payments could help make CSAs more accessible to low-income households. While most CSAs try to lower membership costs for low-income earners using voluntary solidarity payments by high-income earners, these payments are not sufficient.

CRediT Authorship Contribution Statement

Stefan Galley: Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Rita Saleh:** Writing – review & editing, Supervision, Methodology, Conceptualization. **Patrick Bottazzi:** Writing – review & editing, Conceptualization.

Funding

The current study is part of a project that is funded by the Swiss National Science Foundation (SNSF), project number: 100017_200758/ 1. Part of this research was also supported by the SNSF grants Number 176736 and Number 206127 "AgroWork"

Declaration of Competing Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Acknowledgments

We want to thank the different Allotment Gardens, Community Supported Agricultures and Community Gardens for their participation, openness and friendliness.

Data Availability Statement

Data can be made available upon reasonable request due to data privacy and anonymity considerations of the CAP organisations.

3.2 Article 2 – Contrasting Prosumption Models: Experiences, Benefits and Continuation in Allotment Gardens and Community-Supported Agriculture in Switzerland

Stefan Galley, Stefan Mann, Patrick Bottazzi

Published in Societies 2025, 15, 126. Impact Factor: 1.9 (2024)

https://doi.org/10.3390/soc15050126

Abstract:

Agricultural prosumption is a transformative pathway, enabling individuals to reconnect to nature whilst producing food for their own consumption. Allotment gardens (AGs) and community-supported agriculture (CSA) are two main types of this practice, forming opposing sides on a continuous prosumption scale, ranging from prosumption-as-consumption (p-a-c), as in consumption focused CSA initiatives, to prosumption-as-production (p-a-p), as in the production-orientated AGs. Using a survey completed by Swiss CSA (n = 250) and AG members (n = 201), this study shows how prosumers perceive the benefits of their activity, how these experiences shape their likeliness to continue and how differently they rate the effects of prosumption on individuals, communities and society. In addition, it provides an outlook on associated societal developments, regarding these activities as forms of contributive economy. Although the two groups differed in their socio-demographics, their attitudes and experiences were similar. P-a-p organisations (AGs) enhance production-related individual benefits, while p-a-c organisations foster positive experiences around consumption activities. AG continuation is driven by the experienced health and food-related benefits, while CSAs rely on the communal and organisational involvement of their members. While AG members focus on individual benefits, CSA members strive to be part of a food system change, using their communal structures to create a social movement. This demonstrates the wide range and potential of food prosumption in fostering diverse forms of engagement, offering insights into its potential for sustaining participation and contributing to alternative economic models.

Keywords: **A**llotment Gardens; Community Supported Agriculture; Personal Experiences; Contributive Economy

1. Introduction

Changing the significance and value of food in our society is crucial for a just and sustainable food system transformation (Dornelles et al., 2022). Agricultural prosumption, where prosumers co-produce food for their own consumption, plays a key role in this transition by fostering sustainable food production and consumption. In addition to providing local, organic and seasonal food, agricultural prosumption practices contribute to the UN's Sustainable Development Goal (SDG) 11 (Sustainable Cities and Communities) and SDG 12 (Responsible Consumption and Production) (UN, 2015). By strengthening local food systems, promoting short value chains, and fostering community resilience, communal agricultural prosumption contributes to more sustainable urban environments and responsible food consumption (Amsden & McEntee, 2011; Farmer et al., 2011).

In Switzerland, allotment gardens (AG) and community-supported agriculture (CSA) are leading enablers of communal agricultural prosumption (CAP). Both involve members in food production for their own consumption while offering community engagement and recreational opportunities, an aspect that gained importance during the Covid-19 pandemic (Bieri, 2021; Busby, 2020; Meister, 2020; Shirvell, 2021; Winkler et al., 2019).

The main body of literature regarding CAP has focused on the motivations and the willingness to join (Brehm & Eisenhauer, 2008; Kingsley et al., 2019; Kirby et al., 2021; Winkler et al., 2019), either framing these practices as activism (Christensen et al., 2018; Degens & Lapschieß, 2023; Sharp et al., 2002) or part of a broader social movement (Bonfert, 2022b; Hvitsand, 2016; Zoll et al., 2018). A smaller part of research has taken a pragmatic approach, highlighting emotional and practical motivations for participation (Veen et al., 2020). However, both perspectives lack research on how members actually experience CAP over time and which experiences lead to their continuous participation in these activities.

This study addressed this gap by adopting a mixed approach, analysing both pragmatic experiences and activist factors on different societal levels. We conducted an online survey amongst active CAP members to understand their experiences, benefits and other factors influencing continued participation.

We also explore CAP's role in broader societal developments, particularly its contribution to sustainable food systems and its positioning within different models of prosumption. To provide a differentiated view of CAP, we compare experiences, benefits and the importance of social factors in two CAP types: AG and CSA.

Grounding our analysis in prosumption theory (Ritzer & Jurgenson, 2010), we explore two potential societal developments. The first, "prosumption capitalism" (Ritzer, 2015) suggests the (self-) exploitation of prosumers through various social, digital and material capitalist infrastructures that progressively occupy the consumption dimension of a production process. The second, "contributive economy" is rooted in the individual and collective motivations of human activities, at the margin of commodification (Bottazzi, 2019; Timmermann & Félix, 2015; Volken & Bottazzi, 2024).

This approach allows us to analyse prosumers' pragmatic experiences and characteristics and the factors influencing their continued participation, whilst framing these results within CAP's broader societal potential.

2. Background and Aims

2.1. Overview of Allotment Gardens and Community Supported Agriculture in Switzerland

Originating mostly during the industrialisation, AGs are the oldest type of CAP, traditionally providing inexpensive food to their members (Acton, 2011; Poniży et al., 2021). In Switzerland, AGs are established on city-owned land, but managed by local AG organisations, which rent out singular plots of up to 100 square meters to members (Acton, 2011; Familiengärtner-Verband, 2023). Members have to adhere to allotment-specific usage rules, such as the required usage percentage for produce versus recreational use (Szczepańska et al., 2021). In Switzerland, there are more than 23.000 official members (Familiengärtner-Verband, 2023), but estimates project up to 58.000 AG adjacent households nationwide (Dudda, 2015). In addition, AGs positively impact the environment by contributing to urban ecosystem services and green infrastructure (Breuste, 2010; Breuste & Artmann, 2015; Camps-Calvet et al., 2016; McVey et al., 2018; Sowińska-Świerkosz et al., 2021) as well as improving urban climate

(Gómez-Baggethun & Barton, 2013). For their members, AGs offer numerous health and social benefits, including stress reduction, increased physical exercise and additional social contacts (Van den Berg et al., 2010; Wood et al., 2016; Young et al., 2020).

CSA, originating in 1960s Japan (Van En, 1995), has become a worldwide trend. Members finance professional farmers through membership fees and subscription costs, receiving a regular delivery of produce in return (Medici et al., 2021). Most CSAs required their members to contribute a set number of hours of labour to production, logistics or administration (Volz et al., 2016). In 2015, Switzerland had approximately 60 CSAs, feeding up to 26.000 people (Volz et al., 2016). Today, the two major Swiss CSA umbrella organisations list 46 initiatives (Fédération Romande d'Agriculture Contractuelle de Proximité, 2023; RVL, 2022). Most CSAs follow organic production principles, making them sustainable with positive health and environmental benefits (Volz et al., 2016). Research on CSAs covers their economic advantages, such as short value chains (Bazzani & Canavari, 2013) and transformative potential (Brehm & Eisenhauer, 2008; Wells et al., 1999), as well the motivation of members (Hvitsand, 2016; Kirby et al., 2021; Winkler et al., 2019) and CSAs' political engagement (Degens & Lapschieß, 2023; Sharp et al., 2002). CSA's advantages are generally seen from two perspectives: First, farmers achieve higher income compared to traditional farming, as well as ecological, economic and social benefits (Paul, 2019), such as providing quality food to a tight knit community as well a positive impact on soil and water quality (Samoggia et al., 2019). Second, members profit from the high nutritional value and overall quality of the food and participate in communal activities as well as in CSA's democratic structures (Haack et al., 2020; Zoll et al., 2018).

Communal agricultural prosumption (CAP) types offer a wide range of individual and social experiences that may influence participants' long-term engagement, especially if those experiences are perceived to be beneficial. Previous research has shown that outdoor activities, including gardening, contribute to physical and mental well-being through mechanisms such as increased physical activity, exposure to fresh air and biophilia (Van den Berg et al., 2010; Volz et al., 2016; Wilson, 2021; Wood et al., 2016). Similarly, active participation in organisational processes and transparent decision-making

can strengthen members' sense of involvement, potentially increasing their commitment (Brehm & Eisenhauer, 2008; Medici et al., 2021). Economic benefits, such as lower grocery costs or improved food security (Bazzani & Canavari, 2013; Cotter et al., 2017; Galt et al., 2016), as well as opportunities for social interaction and community building (Hvitsand, 2016; Kirby et al., 2021; Lake et al., 2012; Nettle, 2016), may further encourage sustained participation. Finally, engaging in sustainable practices and perceiving self-produced food as healthier and higher quality than store-bought food could reinforce members' motivation to continue prosuming (Alaimo et al., 2008; Egli et al., 2023; Haack et al., 2020).

2.2. Prosumption, Agriculture and Capitalism

The term "prosumption", first used by Alvin Toffler (1980) and later established in social sciences by George Ritzer (2010), captures the connectedness of production and consumption. While widely applied to digital and commercial contexts, such as Wikipedia or user generated content (Cova et al., 2011; Von Hippel, 2005) , prosumption also provides a useful lens for understanding contemporary community-based agriculture.

Ritzer conceptualises prosumption as a continuum, with production and consumption forming two poles, or 'moments in the overarching process of prosumption' (Ritzer, 2015, p. 414). Ritzer argues that production always includes elements of consumption and vice versa, framing these as prosumption-as-production (p-a-p), where production dominates but includes consumption aspects such as in factory work, and prosumption-as-consumption (p-a-c), where consumption dominates but includes production elements, as it is the case with self-checkouts in supermarkets (Ritzer, 2015, p. 415).

In agriculture, industrial farms exemplify p-a-p, as they primarily focus on production but still engage in consumption-related activities such as fodder or seeds use. Conversely, consumer-driven food initiatives, such as produce subscription boxes or farmer-initiated projects such as direct marketing vending machines, represent p-a-c, as they are consumption-orientated yet involve production-related tasks, such as logistics and self-service. This contextualisation aligns with Ritzer's thoughts on the

historic development of p-a-c, where labour once performed by paid employees is now increasingly performed by prosumers (Ritzer, 2015, p. 417).

Within CAP, CSAs emphasise food provision and limited labour for their members, thus aligning themselves more closely with p-a-c, whereas AGs, through their members' focus on active cultivation and harvest, are production dominated, and therefore p-a-p. The historic development from professional farming towards CSAs aligns with Ritzer's proposition, as voluntary CSA work replaced paid farm labour. According to Ritzer, this replacement of paid labour suggests a pessimistic outlook, linking prosumption inevitably to capitalism. He argues that a shift towards a consumer-based prosumption regime will increase the exploitation of consumers, often without them realising their disadvantage (Ritzer & Jurgenson, 2010).

While Ritzer's theory captures important aspects of prosumption, it does not fully account for CAP's non-profit and non-commodified nature. Unlike prosumption in commercial contexts, which often benefits corporations at the expense of consumers, CAP operates at the margins of the market economy, prioritising social and ecological goals over profit. To better understand this alternative economic model, we turn to the concept of contributive economy.

Contributive economy is orientated toward the creation of collective value at the margin of the market economy and commodification (Bottazzi, 2019). The concept emphasises collective management and production of goods and services to meet societal needs rather than generating private profit. Unlike traditional market economies, which operate on exchange-driven and profit-maximising principles, contributive economy incorporates gifting, reciprocity, and redistribution (Laville, 2010). Contributive economy involves a wide range of social entities as economic actors, such as communities, non-profit organizations, and cooperatives, leading to a complex economic landscape (Bottazzi, 2019; Stiegler, 2018). This approach creates opportunities for sharing knowledge and resources, as well as generating a sense of community and mutual support (Bottazzi, 2024). CAP initiatives, such as AGs and CSAs, embody these principles: members contribute labour and resources not for direct financial gain,

but to sustain shared agricultural projects that benefit or establish a community. Rather than being a tool of capitalist exploitation, CAP represents a form of economic organisation that might resist market pressures and lays the foundation for a sustainable and resilient food system.

Recent research has associated alternative food systems and agroecology with the features of a contributive economy, highlighting their potential to create more sustainable and resilient food networks (Timmermann & Félix, 2015). By embedding CAP within this framework, we move beyond Ritzer's critique of prosumption as an extension of capitalism and instead conceptualise it as a transformative economic practice that challenges conventional market dependencies and fosters long-term sustainability.

The concept of contributive prosumption aligns with broader discussions in economic geography and political economy that explore alternative and diverse economic practices. The diverse economies framework (Gibson-Graham, 2008) challenges conventional economic classifications by making visible hybrid and non-capitalist practices that emerge in spaces of collective economic organisation. Studies on meal-sharing platforms and community gardens, as well as on CSAs, have demonstrated how these initiatives blend capitalist, alternative-capitalist, and non-capitalist elements, creating economic relationships based on care, reciprocity, and ethical commitments rather than pure market exchange (Cameron, 2015; Veen & Dagevos, 2019). Similarly, research on community gardens as commons highlights how these spaces function not only as sites of food production but also as social and cultural commons, reinforcing non-monetary forms of value creation (Ponstingel, 2023). These insights complement the notion of contributive prosumption by illustrating how CAP organisations foster economic diversity through their organisational structures, balancing individual and collective benefits. While CAP initiatives often integrate elements of market exchange (e.g., membership fees in CSAs), their embeddedness in community-oriented practices suggests that they operate beyond the conventional prosumer model, contributing to a reconfiguration of economic relations towards more participatory and ethically guided frameworks.

By situating CAP within the framework of contributive prosumption, we highlight its potential to cultivate resilient, community-driven food systems that challenge market dependencies. Understanding these organisational forms is crucial for developing sustainable agricultural models that prioritise social and ecological well-being over profit.

2.3. Aims

After examining communal agricultural prosumption's (CAP) theoretical foundations and its capitalist and contributive features, we turn to the pragmatic experiences within these organisations. By contrasting allotment gardens (AG) and community supported agriculture (CSA) as opposites on the prosumption continuum, we highlight how differences in the organisational structure can influence participants' experiences and engagement, ultimately shaping the sustainability and continuity of these CAP types. This allows us to better understand how different organisational structures shape participants' roles, responsibilities, and motivations. While AGs operate with a more individualised approach to food production, CSAs incorporate varying degrees of collective organisation, shared labour, and decision-making. By situating them along this continuum, we can formulate three research questions.

- RQ1: How do experienced benefits (e.g., health, nature connectedness) and the experienced organisational and community involvement in AGs and CSAs differ along the prosumption continuum?
- RQ2: How do these pragmatic experiences, the involvement and activism shape the long-term commitment to prosumption?
- RQ3: How important are individual-centred (connection to nature), community-centred (community involvement) and society-centred effects (social change/activism) of prosumption for members of AGs and CSAs?

Hypotheses: We expect to see that the experiences and the continuity of the activity are closely linked to the position of each type on the prosumption continuum. We hypothesise that AGs will show a focus on individual experiences and benefits, connected to production-related activities, while CSAs will be influenced by communal experiences and are driven through these social and consumption-related aspects. We believe that individual centred effects will have the highest significance for AG members, while CSA members rate community- and society-centred effects as the most important factors.

3. Methods

3.1. Survey Design

In early 2023, we conducted an online survey with active prosumers in the German-speaking regions of Switzerland. To start, respondents indicated their consent and were informed about data management. Then they were asked to specify their type of prosumption organisation, which allowed us to group them into AG and CSA members. Respondents indicated the duration of their involvement and their likeliness to continue their CAP activity. Additionally, they responded to questions assessing their perceived benefits of prosuming related to health, food quality, and biophilia, as well as their level of involvement in their organisation in terms of decision-making and community participation. We controlled for a perceived economic impact of the activity.

Respondents then indicated their general perceptions of environmental issues, especially in relation to food. Additionally, we assessed the importance attributed to community interaction, social change and biophilia. Finally, their socio-demographic data (i.e., age, gender, education level, employment status, living environment) were recorded, as well as information on respondents' political orientation, citizenship status, living environment (urban or rural), and whether they had access to a garden in their childhood.

3.2. Data Sampling

To sample active prosumers, we selected three AGs as well as nine CSAs in the German-speaking part of Switzerland. The AG organisations, as city-wide consolidation of allotments, ranged from having 1100 to 2600 members in total. Swiss CSAs vary heavily in their size, we therefore included three small CSAs (50 to 100 members), three mid-sized organisations (150 to 250 members), and three large CSAs (350 to 400 members). To account for different environments, we selected five rural, two semi-urban and two urban CSAs, along with two AGs in mid-sized cities and one in a large city. We only focused on CSAs which require physical labour as part of their membership. Using a snowball sampling method (Creswell & Creswell, 2017), the surveys were then send to the organisations, which used their email lists to distribute them to their members. The sampling took place between December 2022 and January 2023. Participants were incentivised with a railway voucher draw.

3.3. Participants

The overall sample consisted of $N = 451$ participants, with $n = 201$ participants from AGs and $n = 250$ from CSAs. With 3800 potential participants the response rate was estimated at 12.6%. All the information about the sample can be found in Table 1.

Table 1: Mean and standard deviation (SD) of sociodemographic characteristics of total sample and CAP types

			Total (n = 451)	AG (n = 201)	CSA (n = 250)
		[unit]	Mean (SD)	Mean (SD)	Mean (SD)
Age		[Years]	49.75 (14.15)	54.23 (14.87)	45.70 (12.29)
Gender	Male	[%]	37.8	48.8 (98)	28.8 (70)
	Female	[%]	58.7	48.8 (98)	68.4 (170)
Education	Basic	[%]	21.3	37.3 (75)	8.8 (22)
	Intermediate	[%]	19.4	24.4 (49)	15.2 (38)
	High	[%]	59.3	38.3 (77)	76.0 (190)
Left-Right Scale (0 = left, 100 = right)	Slider Scale[a)]	[0-100]	30.66 (21.64)	40.75 (21.96)	21.83 (17.65)
Living Environment	Urban (>20k)	[%]	66.4	83 (172)	56.4 (141)
	Rural	[%]	33.6	17 (34)	43.6 (109)
Access to garden in childhood	Yes	[%]	80.4	83.5 (178)	79.6 (199)
	No	[%]	19.6	16.5 (33)	20.4 (51)

Employment	(Self-) Employment	[%]	70.4	56.2 (113)	81.2 (203)
	Retired	[%]	19.2	31.8 (64)	8.4 (21)
	School, study, vocational training	[%]	10.4	3 (6)	5.6 (14)
Citizenship	Swiss	[%]	91	92 (185)	90.8 (227)
	Non-Swiss	[%]	9	8 (16)	8.8 (23)
Duration of Prosumption	< 1 year	[%]	8.6	4.0 (8)	11.6 (29)
	1-3 years	[%]	34.4	21.9 (44)	42.4 (106)
	3-6 years	[%]	25.5	25.4 (51)	26.85 (67)
	> 6 years	[%]	31.5	48.8 (98)	19.2 (48)

[a)] description of scale

3.4. Socio-Demographics of Sample

The analysis of the demographics revealed notable differences between the two types. AG members were significantly older (M = 54.2, SD = 14.9) than CSA members (M = 47.7, SD = 12.3), t (386.49) = 6.53, p<.001, which suggests distinct demographic profiles, also found regarding their employment status. While among AG members, 56.2% were employed, 31.8% were retired and 3% were in school, undergoing vocational training or studying, CSA membership mainly consists of employed or self-employed individuals (81.2%). Only 8.4% were retired and 5.6% were in vocational training. 48.8% of AG members had been involved in their activity for more than six years. While the majority of CSA members (42.4%) had been active for one to three years or less than a year (11.6%).

48.8% of AG members identified as male and 48.8% as female. CSAs exhibited a larger number of members identifying as female with 68.4% and only 28.8% as male.

Whilst our study confirmed the trend (Diekmann & Theuvsen, 2022; Lu et al., 2021) that CSA members' educational background is predominantly high (76%), AG members exhibited a varying distribution between low (37.3%), intermediate (24.4%) and high educational backgrounds (38.3%). These numbers reflect AG members' traditional working-class backgrounds (Acton, 2011; Nilsen & Barnes, 2014), as well as the modern generational shift towards highly educated members (Ye & Yosshida, 2019).

Regarding the political orientation on a scale from 0 (completely left) to 100 (completely right), CSA members displayed a significantly stronger left-leaning tendency (M=21.83, SD=17.65) than AG

members (M=40.75, SD=21.96), t (379.52) = 9.91, p<0.001. 92% of our respondents were Swiss citizens. The majority of our sample reported having had regular access to a garden in their childhood (83.5% in AGs and 79.6% in CSAs).

3.5. Measurement Scales

In order to depict the variances of participants' experiences and attitudes, we used slider scales (0-100), and five-point Likert scales. The latter measured agreement assessments, while the slider scales captured nuanced differentiations in respondents' responses to CAP-specific questions. Additionally, to maximise participation, the survey was designed to be as concise as possible while still capturing key aspects influencing continued engagement.

From the Likert and slider scale items, several measurement scales were constructed to assess key dimensions of the CAP experience, such as perceived health benefits, perceived food quality, the involvement in communal and organisational structures, as well as the economic impact a member felt from their activity. These scales were designed to directly reflect participants' subjective experiences. To assess the internal consistency, we calculated Cronbach's alpha, a statistical measure that indicates how closely related a set of items are as a group. Each multi-item scale demonstrated at least good reliability ($\alpha > 0.7$).

The Health Benefit Perception scale assessed the perceived mental and physical health benefits experienced by agricultural prosumers. Research has shown that gardening and similar outdoor activities increase physical activity and help individuals to de-stress (Van den Berg et al., 2010; Wood et al., 2016). Participants were asked to rate two items focused on the perceived physical and mental health benefits on a scale from 0 (not beneficial at all) to 100 (completely beneficial). The internal consistency exhibited a good Cronbach's alpha of $\alpha = .80$.

Similarly, the Food Quality Perception scale measured how members perceive the healthiness and environmental friendliness of their self-produced food, factors that may reinforce motivation to continue engaging in prosumption (Alaimo et al., 2008). The scale exhibited an acceptable Cronbach's alpha of

α =.71. It contained two items concerning the participants' perception of the healthiness and environmental friendliness of the self-produced food on a scale from 0 (not beneficial at all) to 100 (completely beneficial).

The Community Involvement, the Organisational Involvement and Economic Impact scales were based on 5-point Likert scale agreement statements, ranging from 1 (do not agree at all) to 5 (completely agree). We created these scales after conducting principal component analysis (PCA) and reliability analysis.

The Community Involvement scale assessed the social experiences within CAP organisations, as social interaction and a sense of community may enhance long-term engagement (Lake et al., 2012; Nettle, 2016). The scale exhibited a good Cronbach's alpha of α =.84. The survey contained eight items in relation to the participant's interactions with other members and the impact of the organisation on their social life. PCA revealed that two items related to how welcome the participants felt in their organisation and if other members taught them new ways to produce food had a low correlation with the overall scale ($r < .2$), hence they were not considered in the scale. The final scale was built with the six remaining items (cf. Table 2). A high score on the community involvement scale indicated experiencing a strong involvement in the organisation's community.

The scale for Organisational Involvement captured the extent to which members feel engaged in the decision-making process of their organisation. Research has suggested that active participation and transparent decision making can enhance members' sense of involvement and commitment (Brehm & Eisenhauer, 2008; Medici et al., 2021). It exhibited a Cronbach's alpha of α = 0.73. It was constructed using three Likert-scaled agreement items regarding the members' active participation in the organisation, especially in the decision-making process and the transparency of decisions for members on a scale from 1 (do not agree at all) to 5 (completely agree). PCA revealed that all items have a strong correlation with the overall scale, and they exhibit a good total-item correlation. The higher the rating on this scale, the more the members were and the easier it was for them to get involved in organisation processes of their respective organisation.

The Economic Impact scale evaluated whether active membership provides financial benefits, such as reduced grocery prices or improved food security, which is often cited as an important benefit in CAP (Bazzani & Canavari, 2013; Cotter et al., 2017; Galt et al., 2016; Rahmatika et al., 2024). The scale was constructed through three agreement items on statements whether the activity saves the members money on groceries, if it helped them afford food they otherwise could not, and if it had a positive impact on their livelihood scaled from 1 (do not agree at all) to 5 (completely agree). PCA revealed a good correlation for the three items and the overall scale ($r>.8$). The scale exhibited a good Cronbach's alpha of $\alpha = .73$. The higher the rating, the more positive the economic impact of the activity on the participants.

Participants' connection to nature was measured using the Nature Connectedness scale, as biophilic experiences are known to enhance well-being and engagement in agricultural activities (Grinde & Patil, 2009; Wilson, 2021). Respondents were asked to indicate how connected to nature they felt during their activity on a scale ranging from 0 (not connected at all) to 100 (completely connected).

Similarly, the Continuation scale used the introductory question on the upkeep of prosumption to measure the participants' likeliness to continue their activity on a slider scale from 0 (not likely at all) to 100 (completely likely).

The General Environmental Concern captured how environmental values may influence members' motivation to engage in prosumption (Vassalos et al., 2017). The scale consists of four agreement statements regarding the participants' general concern about environmental problems and climate change in the decision-making process and the transparency of decisions for members on a scale from 1 (do not agree at all) to 5 (completely agree). PCA showed that the items fit well with the overall scale, which additionally exhibits a solid Cronbach's alpha of $\alpha = .68$.

Table 2: Comparison of mean and standard deviation (SD) of scales across total sample and CAP types

		Total (n = 451)	AG (n = 201)	CSA (n = 250)	t-Test
	[unit]	Mean (SD)	Mean (SD)	Mean (SD)	p-value
Health Benefit Perception	[0-100[b]]	81.31 (17.82)	88.21 (12.14)	76.77 (19.14)	0.000
Level of benefit from activity regarding:		*"Physical health benefit perception (SLI)"* *"Mental health benefit perception (SLI)"*			
Food Quality Perception	[0-100[b]]	90.53 (11.44)	86.94 (13.83)	93.48 (8.01)	0.000
Level of benefit from activity regarding:		*"Environmental friendliness of food perception"* *Healthiness of food perception (SLI)*			
Community Involvement	[1-5[a]]	3.37 (0.86)	3.43 (0.86)	3.36 (0.86)	0.344
Total level of agreement with the following statements:		*"I regularly talk to other members"* *"I meet members outside the organisation"* *"I regularly share food with other members"* *"I made new friends in the organisation"* *"Activity had positive impact on my social life"* *"Other members appreciate my work"*			
Organisational Involvement	[0-5[a]]	3.85 (0.82)	3.63 (0.93)	4.01 (0.67)	0.000
Total level of agreement with the following statements:		*"I can easily participate in decision making process within the "organisation"* *"I actively participate in decision making processes"* *"My organisation's decisions are transparent"*			
Economic Impact	[0-5[a]]	2.81 (0.80)	2.86 (0.88)	2.78 (0.74)	0.228
Total level of agreement with the following statements:		*"Activity saves money on groceries"* *"Access to food I otherwise could not afford"* *"Activity supports my livelihood"*			
Nature Connectedness Perception	[0-100[b]]	86.34 (15.48)	90.18 (11.83)	83.24 (16.02)	0.000
Level of connectedness towards nature during activity:					
Continuation	[0-100[b]]	88.92 (17.45)	87.89 (20.25)	90.26 (14.27)	0.477
Level of likeliness of the following statement:		*"Continuation of activity in next 3 years"*			

[a)] 5-point Lickert scale (disagree, mostly disagree, neither agree nor disagree, mostly agree, agree)
[b)] Slider scale ranging from 0 to 100

Lastly, respondents indicated how important biophilia (Wilson, 2021), being part of a community and taking part in social change (food systems transformation) (Degens & Lapschieß, 2023; Nettle, 2016) was for them, as these broader motivations may influence their continued engagement in CAP. The importance of these aspects was recorded on a scale from 0 (not important at all) to 100 (highly important). In addition, they indicated their political orientation. This was relevant since alternative food

systems tend to incorporate left-leaning ideologies and are therefore often sought out by those who share these attitudes (Diekmann & Theuvsen, 2022).These general measurements were used directly as scales.

3.6. Analysis

To determine if there were significant differences between the two CAP types, we ran t-tests for continuous variables (age, left-right scale, as well as all general and specific scales), and used on Chi-Square tests for categorical variables (gender, education, living environment, access to garden during childhood, employment, citizenship, duration of prosumption).

Multiple linear ordinary least square regression analyses were conducted to examine which factors (i.e., age, gender, education, political orientation, living environment, access to garden in childhood, health benefit perceptions, food quality perceptions, community involvement, organisational involvement, economic impacts) were important for the prolonged commitment to prosuming in CSAs and AGs. Prior to that, we ran Pearson's correlations to check the relationships between the independent variables and to identify potential issues with multicollinearity for the subsequent regression analysis. Data were analysed using SPSS version 28, (IBM, 2021).

In order to assess the relative importance of biophilia, community involvement and engagement in social change, we conducted a comparative analysis between the two CAP types. The results were processed visually to clarify the different ratings.

4. Results

4.1. Experienced Benefits and Experienced Involvement

In order to answer the first RQ and to test our hypotheses, we compared the results of the prosumption experience-specific scales between AGs and CSAs. On the Nature Connectedness perception scale (cf. Table 2), AG members ranked significantly higher ($M = 90.18$, $SD = 11.83$) compared to CSA members ($M = 83.24$, $SD = 16.02$), $t(449) = 4.82$, $p < 0.001$. This could partly be explained due to CSA members experiencing reduced physical labour which meant they did not feel as

close to nature as AG members, who spend more time in their allotments and use them as green spaces to retreat. AG members therefore feel highly connected to nature whilst performing their activity. Nevertheless, all participants perceived a strong connection to nature even though both activities were in highly cultivated surroundings and not in a natural outdoor area.

In regard to the experienced benefits of their activity we continued to see significant differences. Whilst still experiencing a large benefit for their physical and mental health, CSA members ($M = 76.77$, $SD = 19.14$) seemed to perceive this significantly less than AG members ($M = 88.21$, $SD = 12.14$), $t(427.39) = -6.40$, $p < 0.001$. While CSAs and AGs both share the goal of producing fresh vegetables, AGs require regular physical work and therefore regular exercise, whilst CSAs demand only a few working days from each member per year.

The distinction between production and consumption could be seen on the food benefit perception scale as well. CSA members rated the environmental and health benefits of the produced food highly positive ($M = 93.48$, $SD = 8.01$). Although this was also the case for AG members ($M = 86.94$, $SD=13.83$), CSA members perceive food-related benefits as significantly higher, $t(304.54) = -5.95$, $p < 0.001$. Here, it is important to mention that CSA members receive regular boxes of produce throughout the year, whereas the harvest of an allotment is heavily dependent on the choices and skills of the single gardener and can be quite sparse.

While there was no significant difference between the two types of CAP in terms of their community involvement, $t(428.61) = 0.88$, $p = 0.379$, CSA members reported significantly easier involvement in the organisational structure ($M = 4.01$, $SD = 0.67$) of their activity, compared to AG members ($M = 3.63$, $SD = 0.93$), $t(353.74) = -4.86$, $p < 0.001$. This result confirms the effectiveness of the democratic and open concepts employed by CSAs (Volz et al., 2016). Overall, we saw that both types are highly social, and members of both perceive them as having positive social benefits for themselves.

No significant difference was found between the two types in regard to their economic impact on the individual, $t(390.46) = 1.00$, $p = 0.317$ While both groups of members perceive a slight positive

economic impact (M_{AG} = 2.86, SD = 0.88; M_{CSA} = 2.78, SD = 0.74), saving money seemed not to be as important as the other social and individual benefits.

4.2. Factors Influencing the Continuation of Communal Agricultural Prosumption

To identify potential issues with multicollinearity for the subsequent regression analysis, Pearson's correlation analysis was performed to test for correlations between the likeliness to continue, as the dependent variable, and the specific activity-based measurements as independent variables (health and food benefit perception, economic impacts, organisational and community involvement, nature connectedness and the duration of prosumption (cf. Table 3).

Table 3: Pearson's correlations of predictors for continuation in CAP types

	Variables – AG	1.	2.	3.	4.	5.	6.	7.	8.
1.	Likelihood of continuing with current prosumption activity	-							
2.	Health Benefit Perception	0.30***	-						
3.	Food Benefit Perception	0.35***	0.42***	-					
4.	Economic Impact	0.17*	0.21***	0.24***	-				
5.	Organisational Involvement	0.11	0.23***	0.24***	0.18**	-			
6.	Community Involvement	0.10	0.42***	0.25***	0.23***	0.56***	-		
7.	Nature Connectedness Perception	0.21***	0.53***	0.49***	0.21**	0.18**	0.26***	-	
8.	Duration of Prosumption	0.05	0.22***	0.16*	0.06	0.27***	0.29***	0.21**	-
	Variables – CSA	1.	2.	3.	4.	5.	6.	7.	8.
1.	Likelihood of continuing with current prosumption activity	-							
2.	Health Benefit Perception	0.29***	-						
3.	Food Benefit Perception	0.25***	0.34***	-					
4.	Economic Impact	0.19***	0.30***	0.18**	-				
5.	Organisational Involvement	0.33***	0.17**	0.22***	0.26***	-			
6.	Community Involvement	0.35***	0.26***	0.10*	0.28***	0.51***	-		
7.	Nature Connectedness Perception	0.19***	0.44***	0.43***	0.24***	0.21***	0.21***	-	
8.	Duration of Prosumption	0.20***	0.04	0.08	0.10	0.21***	0.27***	0.02***	-

*: p<0.05, **: p<0.01, ***: p<0.001

Table 4 displays the results of the two multiple linear regression models, such as the standardised regression coefficients, the p-values and the confidence intervals. The models could explain 16% of the variance in the likeliness to continue in AGs and 21% in CSA initiatives. Due to missing values for some variables, the n was lowered to 196 for AGs and 243 for CSAs. The regression models were significant for AG (F [13,182] = 3.79, $p < 0.001$) and CSA (F [13,229]) = 5.90, $p < 0.001$).

Based on the AG specific estimates, health benefit perceptions had a significant positive influence on the continuation of CAP, signifying that members who experienced mental and physical health benefits from their activity were more likely to continue in their organisation.

Food quality perception was found to be a significant positive influence as well. AG members who saw their produce as healthy and environmentally friendly were therefore highly likely to continue prosuming. In addition to the perception of individual benefits, education exhibited a slightly significant positive effect, predicting a higher continuation rate if AG members had a higher level of education.

Within the CSA model, health benefit perception had a significant positive relationship with the continuation as well, albeit not as strong as for AGs. Food benefit perception was not significant in this model. The role of social influence was exhibited in the significant positive effects of organisational involvement and community involvement. This means that CSA members who were able to actively take part in the community and were able to easily participate in the decision-making process were more likely to continue their activity, which is in line with the literature (Hvitsand, 2016; Kirby et al., 2021). It seems that CSA members motivation to continue is not solely based on pragmatic reasons (Veen et al., 2020) but rather through social and communal aspects. In addition to the effect of these communal and social experiences, we saw a significant negative impact of the living environment on the continuation. Rural CSA members were more likely to continue prosuming than their urban counterparts. This difference could in part be rooted in the higher mobility of urban populations, linking their engagement in a CSA to their current residence. Additionally, the community in CSA initiatives could have a higher significance for rural participants who might have less access to other clubs or social institutions. Compared to literature on the differences of urban and rural AGs, we found that rural CSA

members valued food-related benefits higher and were therefore more inclined to continue participating (Teuber et al., 2019).

Economic influences did not have a significant effect in either model, nor did nature connectedness or the duration of the prosumption activity. Although there were significant differences between the groups in terms of their age, political orientation and gender, these factors were not significant in the regressions. Despite being similar between the groups in the socio-demographical data, participants having access to a garden in their childhood and the subsequent memories made were also found to have no significant influence.

Table 4: Regression analysis summary for predicting continuation of AG and CSA

	AG (n = 196)		*CSA (n = 243)*	
Predictors	(β)	*95% CI*	(β)	*95% CI*
(Constant)		[-25.60, 36.92]		[22.82, 74.40]
Health Benefit Perception	0.24**	[0.11, 0.70]	0.17*	[0.03, 0.23]
Food Benefit Perception	0.28***	[0.18, 0.65]	0.12	[-0.02, 0.45]
Economic Impact	0.09	[-1.17, 5.27]	-0.01	[-2.60, 2.27]
Organisational Involvement	0.05	[-2.36, 4.71]	0.14*	[0.13, 6.02]
Community Involvement	-0.04	[-5.16, 3.24]	0.16*	[0.25, 4.99]
Nature Connectedness Perception	-0.03	[-0.28, 0.20]	-0.03	[-0.15, 0.10]
Duration of Prosumption	0.04	[-2.80, 4.41]	0.12	[-0.08, 3.75]
Age	-0.09	[-0.34, 0.10]	-0.00	[-0.16, 0.15]
Education	0.18*	[0.32, 3.78]	-0.10	[-2.71, 0.30]
Left-Right Scale	0.01	[-0.15, 0.16]	-0.06	[-0.15, 0.05]
Gender	0.09	[-2.39, 9.32]	-0.00	[-3.81, 3.74]
Living Environment	-0.01	[-2.94, 2.72]	-0.13*	[-2.95, -0.08]
Access to Garden in Childhood	0.01	[-2.85, 3.14]	0.10	[-0.17, 3.25]
F	3.78***		5.90***	
Adjusted R Squared	0.16		0.21	

*: p<0.05, **: p<0.01, ***: p<0.001

4.3. Importance of Individual-Centred, Community-Centred and Society-Centred Factors

Looking at the descriptive statistics (cf. Figure 1, Table 5) of the importance measurements for the individual-centred (biophilia), community-centred (community involvement) and society-centred effects (social change), we found that there were differences in the order of importance between the two prosumption types. AG members rated 'Biophilia' ($M = 89.62$, $SD = 11.83$) as the most important aspect, 'Being Part of a Social Change' ($M = 74.9$, $SD = 24.36$) as second most important and 'Community Interaction' ($M = 62.39$, $SD = 25.58$) as the least important factor. CSA members perceived 'Being Part of a Social Change' ($M = 87.60$, $SD = 16.03$) as the most important factor, followed closely by 'Biophilia' ($M = 84.42$, $SD = 17.95$) and 'Community Interaction' ($M = 68.97$, $SD = 21.39$). Although all scores were relatively high, a trend in AG towards an emphasis on individual-centred factors could be seen, while CSAs exhibited a focus on society-centred effects.

Table 5: Importance rating of nature connectedness, community interaction and social change - Means and standard deviation (SD) for total sample and CAP types

		Total (n = 451)	AG (n = 201)	CSA (n = 250)	t-Test
	[unit]	Mean (SD)	Mean (SD)	Mean (SD)	p-value
Nature Connectedness Importance	[0-100][a]	86.64 (15.77)	89.62 (11.83)	84.42 (17.95)	0.015
Level of importance for the following:		*"Connection to nature"*			
Community Interaction Importance	[0-100][a]	66.12 (23.56)	62.39 (25.58)	68.97 (21.39)	0.008
Level of importance for the following:		*"Being part of a community"*			
Social Change Importance	[0-100][a]	81.64 (21.19)	74.90 (24.36)	87.60 (16.03)	0.000
Level of importance for the following:		*"Being part of food system change"*			

[a] Slider scale ranging from 0 to 100

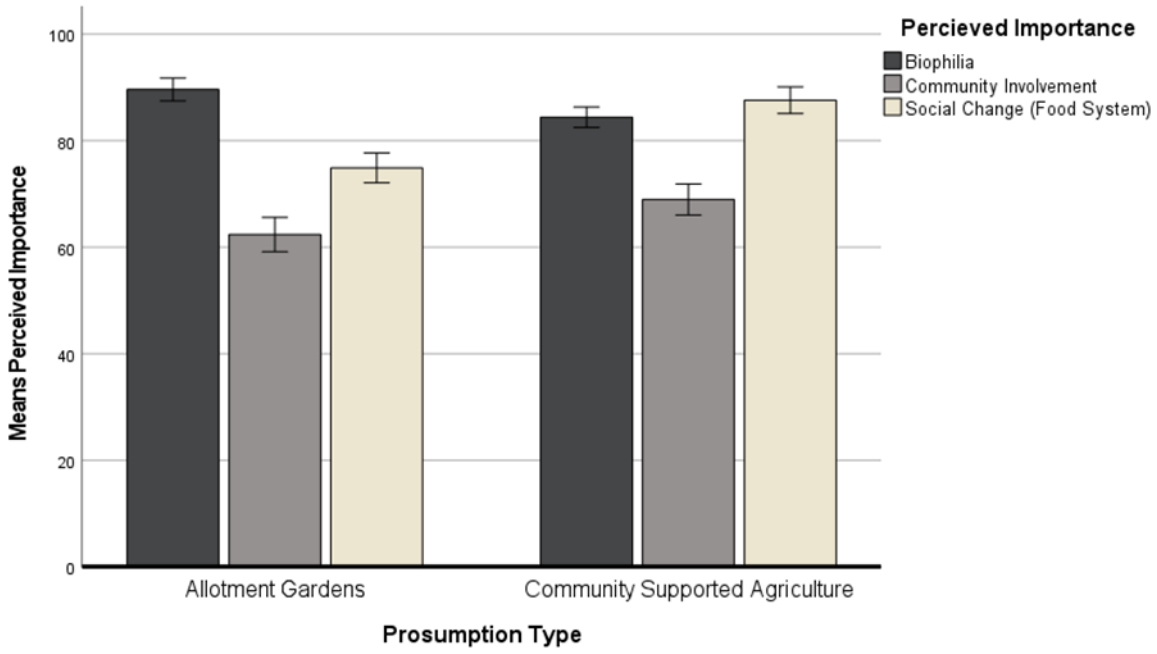

Figure 1: Means perceived importance of nature connectedness, community interaction and social change for CAP types

5. Discussion

5.1. Experienced Benefits and Experienced Involvement

The AG members' higher physical and mental health benefits can be explained through the prolonged time they spend outdoors in their garden in the pursuit of their activity, leading to more exercise and exposure and a stronger connection to nature. This was mirrored in the nature connectedness perception as well and is also regularly described in literature on AGs and similar forms of gardening (Genter et al., 2015; Wood et al., 2016). These benefits are highly production-related and are experienced during the active production part of the members' prosumption activity.

CSA members, in contrast, tend to emphasise positive experiences regarding the quality and sustainability of their food. Unlike AGs, where harvests are concentrated in specific seasons, CSAs provide members with a steady supply of food throughout the year, often on a weekly basis (Volz et al., 2016). While this regularity may contribute to their positive perception of food-related benefits, it is important to note that our study did not directly assess whether this was the determining factor. Rather,

our findings indicate a general tendency for CSA members to associate their experience with consumption-related aspects, such as food diversity and sustainable sourcing (Vasquez et al., 2017).

Despite the historical aim of AGs to provide people from less wealthy backgrounds with affordable and healthy food (Acton, 2011) and the major criticisms of CSAs being their pricing (Forbes & Harmon, 2008), our analysis did not reveal a significant difference between the two groups in this regard. Both AG and CSA members exhibited a slight economic benefit from their activity.

In terms of community involvement, both CAP types exhibited high levels of social engagement. However, CSA members reported significantly greater involvement in organisational processes and found it easier to participate in decision-making. This difference likely stems from the distinct governance structures of each type: CSAs often include mechanisms for member participation in farm planning and financial decisions, while AGs, despite fostering strong social bonds, are typically structured around individual plot management with fewer collective decision-making opportunities.

Our findings confirm our hypothesis that the experienced benefits for each type are linked with their position on the prosumption continuum. AGs, which are more production-dominated, offer benefits that emerge primarily through direct engagement in cultivation, or prosumption-as-production (p-a-p). CSAs, with their emphasis on food distribution and consumption, align more closely with prosumption-as-consumption (p-a-c), where benefits arise through food access and dietary diversity rather than direct involvement in production. This supports Ritzer's (Ritzer, 2015) conceptualisation of prosumption as a spectrum where different organisational forms structure the balance between production and consumption in distinct ways.

5.2. Influence on Continuity of Communal Agricultural Prosumption

The regressions indicate that AG continuation revolves around the experience of individual benefits, while CSA continuation is linked to communal and organisational benefits. This reflects the connection between experienced benefits, their role in continuity, and each CAP type's prosumption structure.

In AGs, as a p-a-p type, members spend most of the prosumption process in their allotment, their individual place of production (Ritzer, 2015). Therefore, the perception of individual benefits directly related to the p-a-p activity is enhanced though their prolonged exposure to production. In CSA, a p-a-c activity, members experience influential benefits through communal interactions and organisational engagement. Only a small part of the prosumption process takes place within the community, be it the production part on communal workdays in the field or social events with other members, whilst the main part of the process, the consumption, takes place at home. Regardless of the spatial segregation, sharing the harvest could connect members with each other. While we cannot directly measure the extent to which sharing the harvest fosters a sense of connection, it is plausible that the regular distribution of produce reinforces members' identification with the CSA and its community. Receiving food grown through a collective effort may serve as a recurring reminder of their involvement, even if much of the prosumption process takes place individually at home. This regular exposure to a feeling of belonging could further deepen the influence of the experienced communal and organisational benefits.

These findings confirm our hypothesis: prosumers are mainly influenced to continue their activity by factors which align with their organisations' position on the prosumption continuum—production-related aspects for AGs and consumption-related aspects for CSAs.

Although monetary aspects are often seen as a highly important part of joining a CAP organisation, economic factors did not influence the likeliness to continue, neither for active AG nor CSA members.

5.3. Importance of Individual-Centred, Community-Centred and Society-Centred Effects

Regarding the comparison between the general importance of different prosumption related aspects, we observed similar tendencies, with AGs exhibiting an individual-centred trend and CSAs a communal and societal trend. Nevertheless, we found that communal aspects were the least important aspect for members in both CAP types. It is possible that these community interactions are overshadowed due to the nature of the two types. While in pragmatist p-a-p organisations, a community exists to enable the member to pursue their individualistic, production-related goals, p-a-c organisations need community

structures to facilitate a form of consumer-driven grassroot activism, reflected in their importance to be part of food system transformation. This suggests that while AGs and CSAs differ in their orientation—individual production versus collective activism—community aspects may not be the primary motivator for prolonged participation in either CAP type. Instead, members may prioritise their personal production goals in AGs and broader societal change in CSAs. This does not mean, however, that communal aspects, especially in AGs, should be overlooked, as these spaces can foster strong social interactions despite their individuality.

Overall, our data illustrate how different CAP organisations on the prosumption continuum differ from each other. Yet, being part of the field of prosumption, we need to discuss how these organisations fit into Ritzer's theory of prosumer capitalism. Contrasting to the positive responses in our survey, Ritzer paints a gloomy picture of the '*defining form of capitalism in the 21st century'* (Ritzer, 2015, p. 422), suggesting it opens up new ways to exploit, not only the workers but also the consumers. Nevertheless, due to their non-profit characteristics, AGs and CSAs do not take part in a profit-driven economy. We therefore argue that CAP can be seen as a blueprint for a transformation towards a contributive economy, or as a first point of contact for citizens with an alternative economic model.

The results of this study and the characterisations of CAP organisations are mirrored in Bernard Stiegler's definition of contributive economy (Stiegler, 2018). Prosumption activities inherently blur the boundaries between production and consumption. Beyond monetary value, CAP organisations contribute to the creation of social cohesion and community structures, as is reflected in the role of communal aspects in organisational continuity. In CSAs, the emphasis on societal benefits suggests the potential to foster shared ethical values and social meaning alongside the production of material goods (Bottazzi, 2019). Meanwhile, AGs exhibit other aspects of alternative economy approaches, particularly through the partial decommodification of work, shifting from profit-orientated labour towards pragmatic, individual benefit-orientated labour.

From the perspective of diverse economies (Gibson-Graham, 2008), CAP organisations exemplify the coexistence of multiple economic logics beyond capitalist market exchange. While AGs enable

forms of self-provisioning that operate outside dominant wage labour structures, CSAs create alternative economic relationships based on solidarity and shared responsibility in food production. Both models demonstrate how economic activities can be structured around non-monetary values such as reciprocity, collective care and sustainability. By embedding economic activities within social and environmental ethics, CAP organisations challenge the notion of a singular capitalist economy, illustrating the possibility of economies that prioritise well-being over profit.

5.4. Limitations and Future Research:

Sampling has been one limitation of this study, since snowball sampling can lead to possible bias. We also only offered the questionnaire in English and German, which could have led to the exclusion of minority groups within the CAP membership. While the timing of the survey in the beginning of the year enabled more people to reply, it could have biased their perception of the actual workload. Additionally, the sampling only included participants who have continued their CAP involvement, meaning we could not account for individuals who may have left due to economic constraints. Future research should explore the reasons for discontinuation to better understand potential economic barriers.

To control a bias due to a reliance on self-reported intentions, further studies should control the actual continuity of CAP members over time. Additionally, studies in other parts of Switzerland could show if there are significant cultural differences between regions, as well as focus on non-prosumers and check if experienced benefits have any influence on the likeliness to join a CAP organisation.

The insights obtained in this study should be used to look into other forms of agricultural prosumption, such as subscription boxes, home gardening, gathering or even non-agricultural but food-related prosumption such as hunting or fishing. These approaches could shine a light on currently underrepresented forms of food production and could lead to a better understanding of a sustainable transformation within the field of food system transformation. In addition, a deeper insight into farmers' experiences within CSAs might lead to further insights into different prosumption types.

Lastly, the apparent overlap of contributive economy and prosumption should be analysed in more detail, and the theoretical implications of this development need to be addressed in a separate paper.

6. Conclusion

In this study, we examined which factors influenced the continuation in CAP organisations. We showed how different organisational structures shape members' experiences and engagement.

Our results indicate that the core activities of CAP organisations—individual production in AGs and communal consumption in CSAs—define their position on the prosumption continuum. Strengthening the benefits associated with these places of action could enhance CAP organisations' overall continuity, ensuring they remain viable alternatives to dominant food system models. By maintaining stable participation, CAPs can act as blueprints for alternative economic models, such as contributive prosumption, offering a counterpoint to Ritzer's vision of the rise of prosumption capitalism.

Beyond their internal benefits, CAP organisations contribute to broader sustainability goals, particularly SDG 11 (Sustainable Cities and Communities) and SDG 12 (Responsible Consumption and Production). Their role in strengthening local food systems, enhancing community resilience, and supporting sustainable food consumption highlights their potential use as policy tools for governments aiming to promote sustainable urban and rural development. Given these contributions, policymakers should consider incentivising CAP organisations and integrating them into national and regional food strategies to ensure long-term viability and impact.

Our findings suggest that CAP organisations could strengthen membership involvement by aligning participation opportunities with the experienced benefits of each type. While most AGs already offer optional community events or shared initiatives, they could try to enhance social ties further, without interfering with the individual focus of production. For CSAs, fostering and strengthening transparent decision-making structures, such as regular feedback mechanisms or participatory budgeting, could reinforce the sense of collective ownership and commitment. Additionally, both AGs and CSAs could

improve continuity by lowering entry barriers, such as flexible membership models or financial accessibility measures, to attract a broader range of participants.

Author Contributions: Conceptualization, S.G., S.M. and P.B.; Methodology, S.G.; Software, S.G.; Formal analysis, S.G.; Investigation, S.G.; Data curation, S.G.; Writing—original draft, S.G.; Writing—review & editing, S.M. and P.B.; Visualization, S.G.; Supervision, S.M. and P.B.; Funding acquisition, P.B. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the Swiss National Science Foundation (SNSF), project number 1000017_200758/1, as well as the grant number 176736 and grant number 206127 "Agrowork"

Institutional Review Board Statement: Ethical review and approval were waived for this study since the research did not entail any harm or discomfort for its participants. We nonetheless followed research and ethics standards. Until mid-2024, Agroscope had the policy to pre-check ethical sensitivity by a member of the Agroscope board who had to decide whether to forward it to an external ethical board. Due to the very low sensitivity of the subject and the single question, this member (Nadja El Benni) decided to waive the ethical approval by the Ethical Committee of Eastern Switzerland.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The original data presented in the study are openly available in Zenodo at DOI: 10.5281/zenodo.14196251.

Acknowledgments: We would like to thank our partners at the allotment gardens and community supported agriculture initiatives for welcoming us and helping us reach our goals.

Conflicts of Interest: The authors declare no conflicts of interest.

3.3 Article 3 – Benefit Perception and their Influence on the Willingness to Join Community Supported Agriculture (CSA)

Stefan Galley, Rita Saleh, Patrick Bottazzi

Published in: Cleaner and Responsible Consumption 17 (2025) 100263. Impact Factor: 5.3 (2024)

https://doi.org/10.1016/j.clrc.2025.100263

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.

Keywords: Community Supported Agriculture, Willingness to Join, Informational Effect, Benefit Perceptions, Switzerland

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 & Canavari, 2013; Brehm & 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 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 & Theuvsen, 2019). A question arises about how people would react to CSA if they were 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 & 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 & 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 & Canavari, 2013), could have a similar impact. While the motivational influence of these benefits on active CSA members is established (Brehm & Eisenhauer, 2008; Fiedler & Madsen, 2015; Hvitsand, 2016; Zoll et al., 2018), their impact on non-members' willingness to join has been rarely discussed (Diekmann & 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 & 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 & Eisenhauer, 2008; Diekmann & 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 & Siegrist, 2016; Connor & Siegrist, 2010; Conroy & Lang, 2021; Cook et al., 2023; Fiedler & 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 & 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 & Lapschieß, 2023; Forbes & 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 & Canavari, 2013), ensuring that members support (small-scale) farmers (Fiedler & 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 & Eisenhauer, 2008; Kirby et al., 2021; Zoll et al., 2018). CSAs also allows for greater trust in farmers and transparency in production processes (Fiedler & 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 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 & 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 & 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; Drichoutis et al., 2006; Grunert & 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 & 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 & 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 & 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 (Bearth & 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 & Cvetkovich, 2000). They rely on their trust in individuals, organisations, labels and certificates to make their decisions (Conroy & 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 & 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 & Theuvsen, 2022). Within CSA, members share these political aspirations and prioritize organic and local food production systems (Degens & Lapschieß, 2023; Pole & 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 & Eisenhauer, 2008; Galt et al., 2016; Hvitsand, 2016; Pole & 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 & 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.

- How does information provision regarding the different benefits of CSA impact non-members' benefit perceptions of CSA for individuals, farmers and society?
- Which benefits of CSAs are most important for non-members?
- 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 a 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 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.

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 to 20 hours) per year, either on the field, the delivery or the administration.
Groups	**Benefit information provided**
Nutrition	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.
Sustainability	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.
Transparency	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.
Solidarity	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.
Community	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.
Control	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.

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 them 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).

Table 2: Socio-demographics of the sample

	Measurement	Total (N=754)	Difference between Groups: ANOVA / Chi Squared
Age (years)	*Mean (SD)*	*46.4 (16.3)*	*$F (5, 748) = 0.64$; $p=.668$*
Gender (%)	*Male*	*48.8%*	*$\chi^2 (5) = 7.80$, $p = .167$*
	Female	*51.2%*	
Education (%)	*Low*	*6%*	*$\chi^2 (10) = 11.84$, $p = .296$*
	Mid	*47.%*	
	High	*45.6%*	

Children	*None*	*72.3%*	χ^2 *(5) = 3,48, p = .626*
	One or more	*27.6%*	
Employment	*(Self-) Employed*	*69.6%*	χ^2 *(5) = 3.34, p = .648*
	Retired, Study, School or unemployed	*30.4%*	
Political Orientation	*Mean (SD)*	*50.25 (21.67)*	*F (5, 748) =0.98; p=.428*

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 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 (α = .82).

Table 3: Means, standard deviation and item total correlation: Sustainable food shopping behaviour scale

Item	**Mean (SD)**	**Item-Total Correlation**
Sustainable Food Shopping Behaviour Scale (α=.82)	**3.84 (0.71)**	
Buying sustainable food items is reasonable	4.38 (0.78)	.72
It is important to me that food I usually buy is sustainable	3.65 (0.92)	.84
It is important to me to buy local food	4.03 (0.90)	.80
It is important to me to buy seasonal food	4.07 (0.87)	.71
It is important to me to buy organic food	3.07 (1.17)	.75

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 α = .78.

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
Trust Food Label Scale (α=.78)	**3.45 (0.77)**	
You can trust the descriptions on food labels	3.37 (0.91)	.82
You can trust Certifications, such as Bio-Suisse or Demeter	3.51 (0.95)	.81
You can trust the declaration of origin of food	3.48 (0.92)	.86
Subjective Knowledge Scale (α=.87)	**2.29 (0.94)**	
I understand a lot of vegetable gardening	2.40 (1.05)	**.87**
I trust in my knowledge of vegetable gardening	2.67 (1.06)	**.82**
Among friends I am the expert in gardening	2.00 (1.11)	**.89**
I have a higher knowledge of gardening than others	2.10 (1.12)	**.87**

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 α = .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 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, 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 ($F(1.83, 1367.98) = 313.88$, $p < .001$, $\eta p2 = 0.27$). Farmer benefits were 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 ($F(5, 748) = 7.67$, $p < .001$, $\eta p2 = 0.05$). 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, ηp2 = .0.2), social benefits (F (5,748) = 7.06, p < .001, ηp2 = 0.05) and farmer benefits perception (F (5,748) = 10.93, p < .001, ηp2 = 0.07). Pairwise comparison showed that the experimental groups ("*Nutrition*", "*Sustainability*", "*Transparency*", "*Solidarity*", "*Community*") rated the social benefits and farmer benefits 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.

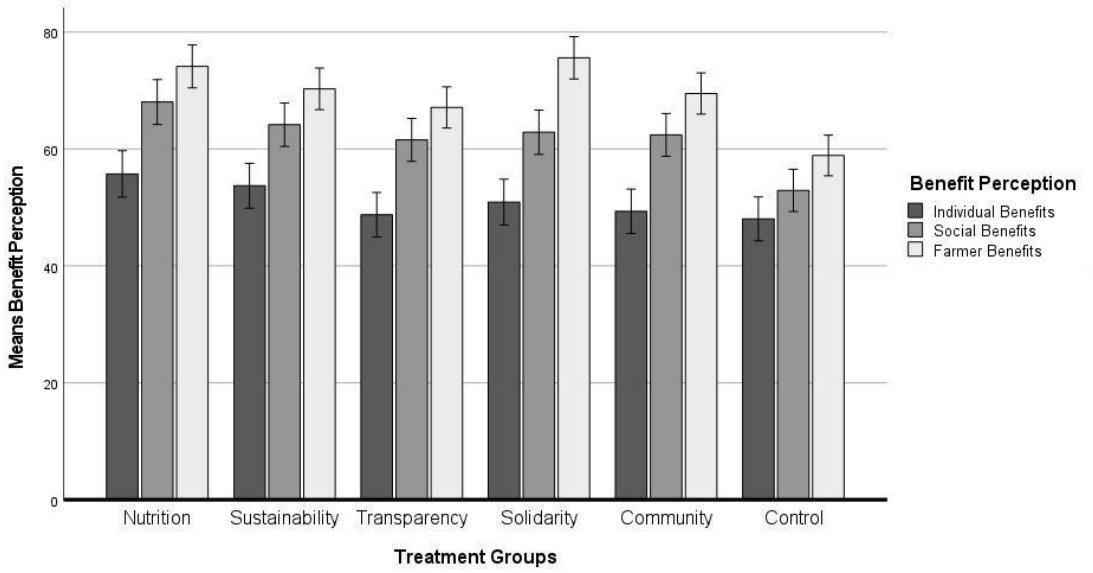

Figure 1: Benefit Perceptions for the individual, society and farmers by the six groups

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)[a]	53.72 (23.53)[a]	48.76 (21.82)[a]	50.92 (21.34)[a]	49.36 (22.62)[a]	48.06 (18.42)[a]
Social Benefit	68.05 (22.18)[a]	64.17 (22.04)[a]	61.57 (21.80)[a]	62.88 (21.73)[a]	62.43 (21.48)[a]	52.93 (17.98)[b]
Farmer Benefit	74.14 (20.28)[a,c]	70.30 (20.69)[a,c]	67.13 (22.11)[a]	75.62 (20.20)[a]	69.50 (19.43)[a,c]	58.89 (19.30)[b]

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

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).

Table 6: Mean and standard deviation for willingness to join

Groups	**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)

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. 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.

Table 7: Regression analysis on the dependent variable willingness to join for the six groups

	Groups											
	Nutrition (n=118)		Sustainability (n=125)		Transparency (n=128)		Solidarity (n=120)		Community (n=129)		Control (n=128)	
Predictors	(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	**.73*** **	**0.69, 0.97**	**.71*** **	**0.68, 0.97**	**.81*** **	**0.77, 1.06**	**.73*** **	**0.70, 0.98**	**.72*** **	**0.67, 0.97**	**.63*** **	**0.52, 0.82**
Trust Farmer	.02	-0.10, 0.15	.01	-0.11, 0.13	.01	-0.12, 0.14	-.06	-0.18, 0.06	.07	-0.06, 0.21	.03	-0.12, 0.18
Trust Foodlabels	.03	-2.13, 3.95	.03	-2.60, 4.63	-.04	-4.22, 2.11	-.06	-3.93, 1.34	.03	-2.60, 4.09	-.04	-4.43, 2.24
Shopping behaviour	**.15***	**0.61, 8.19**	.13	-0.04, 7.60	.03	-3.05, 4.57	**.18** **	**1.42, 7.87**	.06	-1.73, 5.48	**.20** **	**1.44, 8.69**
Previous Experience	.01	-4.78, 5.62	-.11	-9.49, 0.87	-.06	-7.19, 2.23	-.02	-5.30, 3.87	-.08	-8.21, 1.57	-.02	-5.70, 4.22
Subjective knowledge	-.01	-2.86, 2.33	.11	-0.34, 5.02	.04	-1.63, 3.58	-.02	-2.47, 1.85	.01	-2.50, 2.87	.07	-1.36, 4.36
Age	**-.12***	**-0.32, -0.01**	-.09	-0.29, 0.05	-.08	-0.23, 0.04	**-.14***	**-0.33, -0,04**	**-.13***	**-0.30, -0.03**	.09	-0.05, 0.24

Gender	-.01	-5.10, 4.52	.01	-4.06, 5.15	.08	-1.07, 8.00	**-.12***	**-8.67, -0.12**	.01	-4.14, 4.79	.08	-1.79, 7.51
Education	.02	-3.40, 4.57	.09	-0.94, 7.62	-.08	-6.28, 1.21	**.14***	**1.07, 8.48**	.00	-3.17, 3.40	.05	-2.30, 5.49
Children	-.02	-6.14, 5.14	-.05	-8.10, 3.46	.05	-2.80,7.39	.04	-3.30, 6.37	-.06	-7.66, 2.60	.09	-1.64, 9.03
Employment	-.01	-5.70, 0.27	.02	-5.04, 6.69	.02	-4.11, 5.86	**.12***	**0.09, 10.00**	**-.11***	**-10.17, -0.10**	.05	-3.06, 6.97
Political Orientation	**.18****	**0.06, 0.27**	-.02	-0.13, 0.10	-.05	-0.17, 0.07	-.02	-0.13, 0.09	.05	-0.06, 0.15	.07	-0.05, 0.17
Adjusted R Squared	.68		.64		.70		.67		.66		.54	
F	22.13***		19.10***		25.25***		21.06***		21.69***		13.63***	

*: p<0.05, **: p<0.01, ***: p<0.001
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

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 & 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 (Diekmann & 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 & Canavari, 2013; Brehm & 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; Vassalos 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 "N*utrition*" 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 & 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 & 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; Vassalos 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, 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 thronged 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, 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.

Funding

The current study is part of a project that is funded by the Swiss National Science Foundation (SNSF), project number: 100017_200758/ 1. Part of this research was also supported by the SNSF Grants Number 176736 and Number 206127.

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.

4. DISCUSSION AND CONCLUSION

4.1 Summary of the Research Goal and Approach

This dissertation aims to provide a comprehensive understanding of CAP in Switzerland. It examined how CAP organisations are structured (Article 1), what CAP members experience and perceive as important (Article 2), and how non-members perceive the many benefits these organisations create for individuals and society (Article 3). The three articles complement each other in their methods and foci, and reveal the dynamics of participation, continuity, and outreach. The methodological triangulation allowed for a multi-perspective analysis of CAP, weighing inductive organisational insights against internal and external perceptions and experiences. The results depict how continuity in CAP membership is reliant on the organisational design, membership engagement, and broader societal recognition and support. Collectively, the results of the three articles lead to concrete recommendations to improve CAP's resilience, membership retention, engagement, and growth. These recommendations refer to actions that can be taken by the organisations themselves as well as by regional administration and policy makers.

The three different yet complementary studies follow a mixed-method approach to generate a multi-perspective insights into the phenomenon. The first qualitative article (Galley, Saleh, & Bottazzi, 2025b) draws on interview and observational data to analyse and compare the key institutionalised structures of AGs, CGs, and CSAs as institutions for long-term prosumption activities. In addition, it analysed how these structures affect the organisations' adaptability to external and internal challenges. The results showed that the three CAP institutions' different structures directly impact their capacity to adapt and engage with their members. While CSAs exhibit flexible and democratic structures, offering high social engagement but not much room for individuality, AGs' organisational structures foster individual expression and decision-making but are rigid and over formalised. CGs tend to be a hybrid between the two other types but additionally exhibit a strong community focus. CSAs' and CGs' flexibility allows them to adapt more easily to changes and challenges. Their strong political agency through shared values

helps them to connect to political decision makers. AGs have both structure and potential to be greatly impactful in integrational aspects but lack the easily accessible and flexible administrational structures of CGs and CSAs, making them vulnerable to change. While their spatial dimension makes them highly effective parts of urban green infrastructure and ecosystems (Breuste, 2010; Breuste & Artmann, 2015; Camps-Calvet et al., 2016; Gómez-Baggethun & Barton, 2013; Sowińska-Świerkosz et al., 2021), their lack of political agency and underrepresented and poorly communicated social value makes them less attractive for urban planners (Jahrl et al., 2022). The varying institutional features allow for diverse memberships across the three CAP types but can either facilitate or limit the long-term involvement or the uptake of the different CAP activities. While AGs' individual style attracts seasoned gardeners, CGs and especially CSAs are focusing on those who seek an alternative food source and community, without the knowledge and time requirements of an individually managed allotment.

The second article used AGs and CSAs as archetypes of prosumption-as-production (p-a-p) and prosumption-as-consumption (p-a-c) within CAP (Galley, Mann, & Bottazzi, 2025). It focused on the prosumers' experienced benefits, organisational and community involvement, and how these experiences differ between the two types and how important they are to the prosumers. Additionally, it connects these experiences to the likeliness to continue their activity. The results of the survey revealed that experiences, such as communal and organisational involvement, are highly motivating factors in CSAs, while experiences related to the individuals themselves, such as health benefits or food quality, are the main motivators in AGs. The study showed that the structural separation of AGs as p-a-p and CSAs as p-a-c have an impact on the perceived importance of individual, communal, and societal benefits. While members from individualist-centred AGs perceive individual and production-related benefits as most important, CSA members show a societal focus, exemplifying the underlying activism-through-consumption approach of this type.

We used the insights from both studies regarding the benefits and experiences of CAP to create the third and final article, exemplifying the phenomenon of CAP through one type: CSA (Galley, Saleh, & Bottazzi, 2025a). Non-members were tested on how information about CSA-related benefits impacts

their perception of the concept of CSAs as well as their willingness to join. The survey experiment could show that information about the benefits of CSAs can increase non-members' willingness to join, and specific information, such as individual benefits would be able to diversify CSAs membership base. Additionally, it showed that while non-members rate individual benefits as most important to them, they perceive CSAs as highly beneficial for participating farmers and society as a whole. The clear discrepancy between the need for individual benefits and the perception of CSA beneficiaries, in conjunction with the informational effects, showed that tailored communication would be highly important in increasing CSAs' potential as an AFN.

4.2 Cultural Changes for CAP Growth

This dissertation revealed where Swiss CAP organisations are innovative and successful, but also where they struggle. The results identify key elements that can help to grow and diversify CAP memberships and support new initiatives, both for existing CAP types and for CAP-related types, such as school-gardens or edible city concepts. While some key elements can be addressed either by policy makers or the initiatives directly, some require larger bottom-up societal shifts that can only be encouraged or supported but not imposed from the top down. These issues mainly concern barriers to the initial uptake of the activity.

One of the most prominent identified barriers to a wider uptake of CAP in Switzerland is time. With one of the highest average working hours in Europe, Swiss society leaves limited space for voluntary commitments beyond family and employment obligations (Winkler & Axhausen, 2024). This presents a substantial challenge for CAP organisations that rely on regular high individual workloads and regular maintenance such as in AGs, where watering, harvesting or cultivation require daily labour (Galley, Saleh, & Bottazzi, 2025b). Research shows that work-time reduction concepts, such as six-hour days or four-day weeks could alleviate the time restrictions and lead to more sustainable lifestyles (Hanbury et al., 2019; Sahakian & Rossier, 2022). Singular companies could combat this by integrating CG concepts for their employees, as the large factories of the industrialisation did with allotments, and redirect work

time to gardening activities. While this could lead to the already discussed benefits of CAP activities, as well as a higher workplace satisfaction and reduced work stress (Christie et al., 2020; Lee & Koo, 2019; McFarland, 2017) these changes would require a broader shift in politics and national attitudes.

A second core issue lies in the lack of food literacy in the general population, especially regarding food cultivation, production and gardening. The concept of food literacy can be defined as: "*A collection of interrelated knowledge, skills and behaviours required to plan, manage, select, prepare and eat food to meet needs and determine intake*" (Vidgen & Gallegos, 2014). While research has shown that food literacy can be increased through CAP activities (Grubb & Vogl, 2019), which is also reflected in the results of Article 1 (Galley, Saleh, & Bottazzi, 2025b), they only enable the educational growth within the active membership. Without systems to better educate the population on food literacy and gardening, the knowledge barrier will keep large parts of the population from participating in CAP or other food-related prosumption activities.

To increase food consciousness and healthy habits in the long run, which are mainly developed in early childhood (Storksdiek et al., 2014), food literacy education needs to be targeted toward children. Implementing more school gardens, as well as more school subjects and courses on food, food production, and cultivation would lead to an increase in potential prosumers (Holloway et al., 2023). While these issues are theoretically discussed within the Swiss school system (D-EDK, 2015), food literacy and gardening skills are heavily influenced and taught through an individual's household, primarily through parents, grandparents or other relatives (Sharp et al., 2024; Spahiu et al., 2022; Xu et al., 2024). General food literacy therefore needs to be addressed as well, also to raise awareness of the struggles professional farmers endure to grow food, which in turn can encourage more conscious consumption patterns (Grebitus et al., 2017). Regulatory possibilities, such as high taxes on CO2 emissions of imported food might lead to people looking for more regional alternatives but would also increase income disparities. Campaigns on sustainable food, farmers' struggles and similar educational efforts are already underway but often seem to reach only those who are already interested in the topic

(Hanbury et al., 2019). An increase in gardening- and food-related childhood education therefore seems to be the best way to raise awareness and increase knowledge and skills in the long run.

As shown in this chapter, there are ways to foster changes in work-life balance, food literacy and citizen-farmer relations but the societal change required will take time. Nevertheless, there are other aspects to improve CAP that can be addressed directly through either external policy intervention or internal organisational reform.

4.3 Recommendations for Organisations

Despite the many benefits and long history of CAP, its potential remains underutilised in Swiss society. While an underlying cultural change is needed to solve crucial issues on a larger scale, improving CAP in Switzerland could enable the organisations to directly address key issues, such as food security, climate change, and urban decay. The results of this dissertation lead to clear recommendations for organisations to improve their resilience, visibility, and accessibility, and to diversify and expand their membership base.

4.3.1 Organisational Best Practice Approaches

As this dissertation has established, CAP initiatives vary immensely in their organisational structures and in their response to internal and external challenges. While CSAs' flexible structures seem to be more resilient to changes, AGs' traditional organisational form might pose problems in an ever-changing society but shows great potential for integration of marginalised groups. The flexibility of CGs allows them to produce not only a lot of food in a small space but also to have a strong social impact on the lives of their members.

These organisational differences must be critically examined, and CAP organisations should adopt organisational characteristics that have proven effective in fostering long-term membership retention. This approach parallels the concept of mimetic isomorphism, whereby organisations emulate successful models in response to perceived uncertainty or normative pressure (Powell & DiMaggio, 2012).

Findings from both the first and second study (Galley, Mann, & Bottazzi, 2025; Galley, Saleh, & Bottazzi, 2025b) show that the degree to which members can engage with organisational and decision-making processes has a significant impact on their willingness to remain active. When people felt needed and their opinions were valued, they tended to remain committed to the initiative. Organisations, such as many CSAs, strengthen members' sense of ownership and attachment by offering low-threshold, time-efficient, and meaningful opportunities for administrative involvement. Early integration of members into the administration can additionally increase personal identification with the group and contribute to a shared sense of purpose and a stronger collective identity.

AGs in particular could mimic CGs' and CSAs' adaptive best practices by reducing administrative complexity and implementing more democratic and flexible forms of organisation. This would include low-threshold forms of organisational integration, such as small and relatively independent working groups. All CAPs, but CSA in particular, should enhance participatory governance through tools like feedback rounds, transparent decision-making, or participatory budgeting to reinforce member commitment and collective ownership. Although a heavier workload for administrators, regular internal reflections, such as member feedback or evaluations, could help to identify problems early and adapt to internal challenges democratically.

Another organisational best practice approach is related to the topic of political agency. When goals and values are co-developed with members rather than set top-down, organisations become more cohesive and resilient, as emphasised in relevant literature and shown in the first article (Battilana & Lee, 2014; Galley, Saleh, & Bottazzi, 2025b; Greenwood et al., 2017). They are subsequently more likely to be perceived as legitimate actors by external institutions. In this way, internal democracy is not merely a procedural ideal but a strategic asset in gaining public relevance and funding. Whether through task-specific working groups, rotating committees, or open planning meetings, CAP institutions can develop structures that strengthen both their internal cohesion, their public visibility and their political agency (Certomà & Tornaghi, 2015). While CSAs and CGs with their underlying political agenda have an inherent connection to shared values and ideas, AG membership is much more diverse and often stems

from completely different political and social backgrounds. To find common ground and values as well as to build social cohesion in their diverse membership, AGs should embrace optional community events and knowledge sharing platforms. For example, shared meals or other commensality events (Fischler, 2011; Jönsson et al., 2021), could serve as a low-threshold space for community building where political ideas can emerge organically in a relaxed and low-conflict setting (Galley, Saleh, & Bottazzi, 2025b). In this context, AGs' particularly diverse membership could lead to the emergence of unique perspectives and integrative solutions. The informal, convivial atmosphere fostered by shared meals and social interactions allows individuals from different backgrounds to engage in dialogue, exchange knowledge, and collaboratively develop approaches that are both locally grounded and socially inclusive. These approaches could then be used to develop long term-strategies on how to deal with governmental administrators and increase AGs' political agency, strengthening their position in urban planning and local politics.

4.3.2 Inter-Institutional Networks

Even with a shared, value-driven political agenda, a single organisation might struggle when faced with challenges such as land access, urban densification, visibility or knowledge management. Inter-institutional networks are a key organisational characteristic identified by the first article, which help to connect CAP types, thus increasing their resilience and broader impact (Galley, Saleh, & Bottazzi, 2025b). Additionally, it revealed that CSAs benefit from broader and more diversified connections to like-minded initiatives, such as other AFNs or political actors, while AGs and CGs generally rely on networks built around organisations of the same type (Bonfert, 2022a, 2022b; Galley, Saleh, & Bottazzi, 2025b). Borrowing from classical sociological theory, one could argue that CSAs maintain *weak tie* relationships, which are characterised by loose, cross-cutting connections that facilitate the flow of new ideas, practices, and resources from outside the immediate organisational field (Granovetter, 1973). These weak ties are, for example, connections with other AFNs, trans-local food initiatives, or environmental protection agencies. In contrast, AGs and CGs predominantly rely on *strong tie*

relationships, which entail frequent interaction, mutual trust, and shared norms within a close-knit organisational environment. While these ties offer stability, reliability, and internal cohesion, they tend to reinforce existing routines and limit exposure to diverse perspectives, making innovation and strategic adaptation more difficult (Granovetter, 1973). A more open, outward-looking networking approach, focused on weak ties, could help CGs and AGs access new resources and reach broader audiences, but even CSAs stand to benefit from further expanding their alliances. Strengthening these networks, both within and beyond CAP circles, can significantly enhance organisational adaptability and resilience. Cross-organisational cooperation (weak tie relationships) offers access to best practice models, facilitates shared learning, and enables faster responses to external or internal challenges. It also fosters trans-local learning opportunities. As discussed in the first article, adopting innovations in organisational governance, member engagement, or communication strategies becomes easier when supported by peer exchanges. Collaborations between CAP types and schools, municipalities, or advocacy groups can provide shared infrastructure, amplify public visibility, and ensure that CAP remains part of the public conversation on sustainable food systems. Building such networks, especially weak tie relationships, should therefore be understood as a strategic priority, not only for securing operational adaptability through access to best practice approaches, but also for strengthening the collective voice of CAP in Swiss food politics. Trans-local connection to regionally unavailable food cooperatives, such as olive oil or fruit producers, would additionally link interested consumers to sustainable and justice-oriented AFNs.

4.3.3 Reducing Barriers

Reducing access barriers remains a crucial step toward broadening participation and attracting new members. CAP organisations must proactively work to reduce internal barriers that prevent broader participation. Time commitments, financial costs, and knowledge requirements hinder membership diversity (Galley, Saleh, & Bottazzi, 2025b). While these barriers are also rooted in wider cultural

patterns, as discussed in the chapter on cultural change, organisations are not powerless in addressing these issues.

Addressing these entry barriers is particularly important for AGs and CGs, where autonomous work and individual plot management are common (Galley, Saleh, & Bottazzi, 2025b). One effective way to address all three dimensions simultaneously is through the implementation of flexible membership models, as outlined in the best practice section. Shared or group plots in AGs and CGs, already used sporadically in some initiatives, can reduce the time requirements by distributing work among several people. They lower individual costs through resource pooling and facilitate mutual learning by connecting newcomers with more experienced members. While CSAs have the highest financial burden, their solidarity-based payment systems try to alleviate the financial burden for low-income families. Although AGs are comparatively cheap, they could adopt similar systems where participants contribute based on ability, further lowering the entry barrier. Shared resources, such as tool libraries or seed and plant exchanges can further reduce in monetary requirements in AGs and CGs. Knowledge gaps, often a deterrent for first-time AG and CG gardeners, can be addressed through these same collaborative structures. Although most AGs and CGs offer workshops, printed guides, and seasonal tip sheets to provide low-threshold educational support, new members often do not use them. Dedicated mentoring programmes, for example gardening godparents, would support new members directly and help ensure their smooth integration into the organisation's social environment. Additionally, research has shown that increased knowledge might be fostering organic gardening practices in AGs (Jahrl & Home, 2014), which could also be relevant for CGs.

To further increase food literacy from a young age, CAP organisations should focus on educational events specifically aimed at children. While these are often institutionalised in CGs and CSAs, AGs rely on their intergenerational membership, where children directly learn from their parents (Galley, Saleh, & Bottazzi, 2025b). Offering allotments to schools or kindergartens could effectively institutionalise these learning possibilities in AGs. In line with the findings of the first article (Galley, Saleh, & Bottazzi, 2025b), research has shown that consumption patterns can be changed through regular interactions

between consumers and producers, a key component of many AFNs, especially farmer-led CSAs (Opitz, Specht, et al., 2017).

It is important to stress that the incorporation of flexible structures should not be seen as a permanent change to a CAP type's characteristics, but rather as a low-threshold way of getting to know how such an organisation functions and how prosumption works within that type for a broader and more diverse membership. For example, shared plots in AGs would enable newcomers to experience the personal joys and benefits of gardening, while sharing responsibilities, costs and workload.

4.3.4 Tailored Communication Strategies

Beyond the reduction of barriers, tailored communication remains one of the most important levers to attract new members and diversify CAP participation. As shown in the third article (Galley, Saleh, & Bottazzi, 2025a), non-members respond positively to information about individual benefits, such as health and sustainability, even when these are not traditionally emphasised in CSA outreach. Communal and activist-oriented benefits, on the other hand, continue to resonate with already interested groups. This result suggests that CAP organisations need to find a communicative balance between highlighting long-standing values such as solidarity and democratic participation while also amplifying lesser known but widely relevant benefits like personal well-being and dietary quality. In effect, internal member experiences should inform external messaging. For example, AGs, which are often stereotyped as individualistic, may in fact foster strong community bonds, which are rarely emphasised in public narratives.

In this context, tailored outreach strategies for specific demographic groups might be highly effective. For instance, health and nutrition messaging appeals even to conservative individuals, who are typically underrepresented in CSAs (Galley, Saleh, & Bottazzi, 2025a). Similarly, flexibility, affordability, and enjoyment may attract younger or time-constrained populations. Clear, low-barrier communication on practical aspects, such as costs, work hours, or seasonal activities, can also help address misperceptions that deter engagement. AGs and CGs, for example, often have minimal financial

requirements but rarely highlight this in their public messaging. Communicating existing accessibility could open new entry points for underrepresented groups.

Such reframing is especially important in the Swiss context, where high trust in conventional agriculture can reduce perceived urgency for alternatives. This challenge can be met with two distinct strategies. Organisations may frame CAP not as an opposition to conventional agriculture, but as a trusted and locally embedded complement that safeguards quality and transparency while deepening the connection between consumers and producers.

At the same time, CAP actors might choose an educational route, actively pointing to the weaknesses of the dominant food system (e.g., seasonality, dependence on imports, working conditions) and offering CAP as a meaningful alternative. In doing so, they must be cautious not to appear overly moralising or burdensome but instead clearly articulate what CAP offers in return for less convenience: tangible benefits such as community, purpose, and improved well-being. CSAs in particular tend to frame CAP as a deliberate alternative to industrialised agriculture, attracting politically engaged, highly educated middle-class participants. Many CSA participants interviewed for the first article, for example, saw their activity as a form of political activism (Galley, Saleh, & Bottazzi, 2025b). While this symbolic positioning strengthens group identity and commitment, it risks reinforcing cultural boundaries. In Bourdieu's terms (Bourdieu, 1987), this alignment reflects a specific habitus, marked by differences in ecological awareness, political engagement, and cultural capital. The resulting distinction can serve as a source of pride and identity for those who embody these values but may simultaneously deter individuals who do not share them. AGs, CGs, and CSAs each appeal to different social milieus, making CAP diverse but also prone to segmentation. To realise its full emancipatory potential, CAP must strike a balance in their communication strategies between core values and accessible, tangible benefits.

Finally, partnerships with schools, neighbourhood associations, or workplaces can create opportunities for trial sessions, workdays, or educational visits, allowing potential members to engage with CAP through direct experience. Such formats not only raise visibility but help build familiarity and trust and show potential prosumers the benefits of a CAP activity.

Taken together, the results of this dissertation revealed that organisational innovation in CAP does not require abandoning its core values. Rather, it means reinforcing them through clearer communication, reduced entry barriers, inclusive organisational structures, the adoption of best practice approaches from other AFNs, and stronger inter-institutional networks. By embracing these changes, CAP initiatives can improve their specific strengths while becoming more adaptable, accessible, and aligned with evolving societal demands. However, to unlock CAP's full societal potential, supportive public policy frameworks are essential

4.4 Recommendations for Policy Makers

While recent Swiss food policy documents, namely the Federal Food Safety and Veterinary Office's *Swiss Nutrition Strategy 2025–2032* (FSVO, 2025) and the Federal Office for Agriculture's *Agriculture and Food Climate Strategy 2050* (FOAG, 2023), set ambitious goals regarding sustainability, food literacy, and urban resilience, these reports fail to explicitly mention CAP as a mechanism to achieve these goals. To meet the aims set by these documents, policymakers must formally recognise CAP as valuable contributors to sustainable food systems.

4.4.1 Acknowledging CAP as Crucial Sustainable Food Systems

This includes integrating CAP into cantonal and national policy strategies on food, environment, and health. By acknowledging CAP's multifaceted contributions, such as biodiversity conservation and community resilience, governments can elevate these initiatives beyond marginal status. As shown in the first article, many CAP types already engage in socially and environmentally significant work, yet their lack of visibility in formal policy arenas undermines their impact, leaving them vulnerable to displacement under urban densification pressures (Haaland & van Den Bosch, 2015; Jahrl et al., 2022). Embedding CAP in local planning frameworks as a contributor to Sustainable Development Goals 11 (sustainable cities) and 12 (sustainable consumption and production) (UN, 2015) could unlock access to

structural and financial support. Formal recognition would therefore be the first step towards ensuring the prolonged continuation of all three CAP types.

4.4.2 Financial and Administrative Support

Through formal recognition, CAP organisations could gain additional financial support, which could be used in two primary forms. First, foundational support for new CAP initiatives is urgently needed. As shown in the first and second article, the effort required to initiate and manage a CAP project, especially in terms of land access and regulatory navigation, can be prohibitive (Galley, Mann, & Bottazzi, 2025; Galley, Saleh, & Bottazzi, 2025b). Municipalities and cantons can facilitate this by offering clear procedural frameworks, advisory services, legal templates, and easing access to unused or underutilised public land. Additionally, long-term access to green spaces must be guaranteed, especially in cities where time investment and community-building depends on convenient access to local initiatives. Many CAP organisations lack professional administrative capacity. Reducing bureaucratic barriers can make public support more accessible and encourage new initiatives to emerge. Second, CAP networks need support not only in creation but also in continued operation. As discussed in the chapter on recommendations for organisations and in detail in article 1 (Galley, Saleh, & Bottazzi, 2025b), inter-institutional networks significantly enhance a CAP organisation's adaptability and policy relevance. Establishing or expanding such networks across CAP types requires dedicated personnel and sustained funding, as these structures rarely operate on a for-profit basis. Policymakers should therefore allocate sustainable financial support for CAP network coordinators or integrate CAP exchange and cooperation platforms into existing structures within government departments, such as the Federal Office for Agriculture, the Federal Office for Spatial Development, and cantonal departments of health, education, and urban planning. Encouraging interdepartmental collaboration, for instance through joint initiatives across agriculture, health, and education, would allow CAP to be addressed as a cross-cutting issue. In parallel, establishing national CAP roundtables or similar communicative forums could professionalise the field and ensure that best practices, strategic responses, and innovative ideas are

shared effectively across cantons and organisational types. Crucially, such institutional support must be designed to respect the grassroots origins and organisational autonomy of CAP initiatives, ensuring that external involvement strengthens rather than standardises or redirects their core values. This would be possible by including CAP actors in advisory roles within urban food councils, development planning, or other sustainability consultations.

4.4.3 Reducing Barriers

To further strengthen CAP uptake among the wider population, policymakers must address the three cultural barriers identified in this dissertation as well: time, knowledge, and financial cost. These obstacles are deeply embedded in Swiss socio-economic structures and cannot be resolved by CAP organisations alone. Public policy has an essential role in reducing these constraints and facilitating broader access.

As highlighted in the first and second article (Galley, Mann, & Bottazzi, 2025; Galley, Saleh, & Bottazzi, 2025b), many CAP organisations, especially AGs and CGs, require a considerable time investment, which limits participation for full-time workers and families. While general workload reduction exceeds the scope of CAP policy, municipalities and cantons could support flexible, low-commitment participation formats. This includes promoting initiatives that offer part-time participation through communal plots or shared work, as well as ensuring local CAP access near residential or employment zones. Public institutions can lead by example through small CGs near schools, city offices, or hospitals to allow for spontaneous, low-threshold engagement. Initiatives such as workplace-based CAP gardens could be framed within health promotion policies (FSVO, 2025), thereby aligning work-life balance with sustainable food practices.

A second key barrier that needs to be overcome is knowledge, which is particularly important for AGs and CGs (Galley, Saleh, & Bottazzi, 2025b). This focus is already present in the national nutrition strategy, which emphasises the importance of food literacy, school-based education, and awareness campaigns to promote healthy and sustainable diets (FSVO, 2025). Integrating CAP into school

curricula, public workshops, or edible city projects would directly serve this aim, while also fostering long-term civic engagement (Amin et al., 2018; Cullen et al., 2015). Municipalities could also collaborate with cantonal education departments to support CAP-related programs in vocational training and adult education. While there is a general lack of knowledge about the concept of CSAs (Takagi et al., 2025), the third study showed that by simply knowing more about CSA benefits increases non-members' willingness to join (Galley, Saleh, & Bottazzi, 2025a). Information campaigns on related benefits could therefore help to raise interest in CAP. These interventions would not only empower individuals with gardening and seasonal food knowledge but also reframe CAP as a form of civic engagement and ecological responsibility.

Lastly, the financial barrier was especially relevant in CSAs, where membership costs are generally high (Galley, Mann, & Bottazzi, 2025; Galley, Saleh, & Bottazzi, 2025a). While the Swiss government provides direct payments to conventional farmers for ecosystem services and landscape protection (FOAG, 2023), similar incentives cannot be claimed by CAP initiatives. Especially the space intensive CAP types, such as CSAs and AGs, are delivering valuable ecological benefits, which should be recognised and supported. The lack of these payments for CSAs was mentioned repeatedly by farmers working for these initiatives in the early qualitative research stages of this dissertation.

Policy changes can also directly influence individuals, through support mechanisms such as tax deductions for CAP membership fees, subsidies for participation, or public grants for low-income households. These systems can help ensure that CAP participation does not remain confined to specific social milieus, allowing for diverse, widespread adoption of CAP activities. This in turn would contribute to the government's broader goals of promoting access to nutritious, local food.

These recommendations derived from the findings of the three articles underscore that the future viability of CAP in Switzerland depends on coordinated efforts from both internal and external actors. While organisations can enhance participation through tailored communication, structural flexibility, and inter-institutional collaboration, policy makers need to recognise CAP as a vital contributor to climate-resilient, just, and participatory food systems and reduce systemic barriers. Although these

interventions have great potential, policy measures and organisations can only ease access and incentivise engagement. However, meaningful change requires a long-term transformation in public attitudes and everyday routines. The widespread participation in CAP ultimately depends on shifting societal values around time, food, and ecological responsibility.

4.5 Limitations and Implications for Future Research

This dissertation provides a comprehensive and multi-perspective examination of prominent CAP types in the German-speaking part of Switzerland. Nevertheless, there are several general limitations, beyond the specific limitations of each study, that must be acknowledged and explored in future research.

The geographic and organisational scope of this research is limited to German-speaking regions and the three most prominent forms of CAP. This necessarily excludes more informal or hybrid models of prosumption. Additionally, it does not take the significant cultural differences into consideration that could influence regional variations found in Romandie or Ticino. Accordingly, the findings give a good overview of the cultural CAP characteristics within the German-speaking part of Switzerland but do not claim to represent CAP across cultural borders. Additionally, the dissertation relied on cross-sectional quantitative data and did not include a longitudinal component, limiting insights into how perceptions evolve over time or how effective structural change could be. Data on dropouts could also not be included, and would present a significant sampling challenge, leaving a blind spot in understanding barriers to access and retention. Issues such as class, gender, and migration surfaced in the qualitative data, but were not central analytical categories in the quantitative studies.

While this dissertation has used the concept of prosumption to analyse participatory dynamics in the field of AFNs, the prosumption terminology remains inconsistently applied and under-theorised within food systems research. Its analytical value lies in highlighting the blurring of production and consumption yet overlapping concepts such as AFNs, urban agriculture, or alternative economies often offer clearer, more inclusive descriptors. For instance, while vegetable subscription boxes are often seen

as entry points in AFNs and are often classified as part of CSAs, they do not require physical work. Although this would still be considered prosumption under a theoretical lens, many CAP benefits related to physical work are not present in such systems. As noted in the introduction, this conceptual ambiguity risks fragmenting the field.

While a critical examination of the theoretical boundaries and overlaps between prosumption and related terms is necessary, prosumption theory can still be used to its advantage in the broader agri-food sector, including individual practices such as foraging, hunting, fishing, and home gardening. This could further clarify its distinct contributions and limitations within sustainability and agri-food scholarship. To address the described limitations, comparative and longitudinal studies could explore how participation, organisational structures, and public perception evolve over time. Further attention should be paid to dropouts, marginalised groups, and underrepresented demographics to better understand barriers and blind spots in current CAP models, especially in regard to ethnicity, gender, and class. Research on willingness to join, particularly the influence of information on this decision, should be extended to other forms of CAP and AFNs. Additionally, there is a significant lack of research on the economic and ecological effects of CAP. An in-depth analysis of the production capacities of CSAs, AGs and CGs could strengthen the standing of agricultural prosumption within food security policy. Research on production-specific aspects, large-scale studies on pesticide and fertiliser use in AGs (Jahrl & Home, 2014) or production-related food waste in CSAs would further highlight the benefits of CAP.

Regarding the limited geographical applicability, particularly if CAP is to be used as a potential blueprint for sustainable urban food systems in the Global South, culturally specific research approaches are needed. CAP as understood in this dissertation emerges from post-industrial, Western European concerns, such as food quality, ecological awareness, and civic participation. In contrast, food production in many non-European contexts often responds to subsistence needs, informal economies, and complex socio-political dynamics. Applying CAP models uncritically to these settings risks imposing Eurocentric logics that overlook local knowledge systems, historical inequalities, and diverse food cultures.

Such transfers may not only mask global divisions of labour that sustain European food security but also introduce new forms of unpaid or feminised labour in the name of empowerment. This reflects an externalisation of production costs onto the prosumer, as George Ritzer (2015) would frame it. Similarly, Toffler's (1980) techno-optimism, prevalent in Western visions of grassroots innovation, can obscure the historical and structural imbalances embedded in development discourses. Future research should investigate how context-specific CAP-like models may support sustainable urban development without reproducing top-down or globalised logics. Interdisciplinary collaboration, across social sciences, urban planning, agronomy, and development studies, will be essential to ensure that such models are shaped by local communities rather than imposed upon them.

4.6 Concluding Remarks

This dissertation set out to investigate Communal Agricultural Prosumption (CAP) in Switzerland and has shown that it holds substantial potential to foster resilient local food systems, promote ecological responsibility, and strengthen social cohesion. In addition, it can enhance food literacy and help rebuild direct, trust-based relationships between producers and consumers. These strengths position CAP as a meaningful response to global sustainability challenges with tangible local benefits. However, the research also makes clear that this potential is far from fully realised. CAP remains structurally and socially marginal in many contexts and continues to face cultural, organisational, and political obstacles to broader uptake and continuity.

Most urgently, CAP must be formally recognised by policymakers as a valuable contributor to sustainable food policy. It should be acknowledged not only as a tool for local food security but also for its potential to contribute to climate-resilient urban spaces and public education around food. Increased food literacy and a higher societal valuation of food, both fostered through CAP, would not only encourage more conscious and sustainable consumption but also reduce the growing rural–urban divide by improving public understanding of farmers' realities. For these reasons, CAP must be explicitly integrated into future national frameworks, most notably the forthcoming implementation phase of the

Swiss Nutrition Strategy 2025 (FSVO, 2025), where its potential for structural change and civic engagement can be translated into actionable policy.

To support this transformation, this dissertation offered concrete recommendations across multiple levels. Internally, CAP organisations must build on successful practices by fostering participatory governance, reducing entry barriers, and developing flexible membership models. Inter-institutional networks, particularly those built on weak ties, can support strategic learning, visibility, and resilience across CAP types and similar institutions. Tailored communication strategies, grounded in the actual experiences and values of members, are essential to attract more diverse participants and overcome perceptions of CAP as exclusive or unnecessary.

Externally, public institutions and policymakers must provide appropriate support for CAP. This includes financial and legal assistance for new initiatives, secure land access, and long-term support for CAP networks. Public education, subsidies, and visible integration of CAP into schools, municipalities, and planning frameworks can further reduce cultural and structural barriers to participation. These efforts must be designed to reinforce rather than undermine CAP's grassroots character and local autonomy.

If Switzerland is to meet its 2050 climate and nutrition targets (FOAG, 2023), it must draw on participatory models like CAP that integrate ecological, social, and educational functions into everyday urban life. This dissertation has shown that a sustainable transformation of the food system requires a combined effort from organisations, policy makers and citizens to ensure that CAP organisations can thrive. If CAP is to serve as a model for sustainable transitions, organisations must continue evolving and adapting, while remaining true to their core values and historical roots.

CAP is both a mirror and a motor of social transformation. Prosumption reflects emerging desires for sustainability, locality, and democratic engagement, while also offering practical frameworks through which these values can take root. By analysing how CAP functions, what members experience, and what enables its broader societal uptake, this research contributes to ongoing debates about how to build just and sustainable futures through grounded, collaborative, and adaptive practices. CAP should

be seen as an entry point for a broader societal shift towards alternative economies, urgently needed to combat the negative impact of over-globalisation. Local initiatives can help to build communities in their immediate surroundings, and foster closer ties between consumers and producers, not only in Switzerland, but around the world. In reference to the working title of this dissertation and the title of the first article, CAP is not simply about growing food but also about growing together as a society.

5. BIBLIOGRAPHY

Acton, L. (2011). Allotment Gardens: A Reflection of History, Heritage, Community and Self. *Papers from the Institute of Archaeology*, *21*(0). https://doi.org/10.5334/pia.379

Aktinson, P., & Hammersley, M. (1998). Ethnography and participant observation. *Strategies of Qualitative Inquiry. Thousand Oaks: Sage*, 248-261.

Alaimo, K., Packnett, E., Miles, R. A., & Kruger, D. J. (2008). Fruit and vegetable intake among urban community gardeners. *J Nutr Educ Behav*, *40*(2), 94-101. https://doi.org/10.1016/j.jneb.2006.12.003

Amin, S. A., Panzarella, C., Lehnerd, M., Cash, S. B., Economos, C. D., & Sacheck, J. M. (2018). Identifying food literacy educational opportunities for youth. *Health Education & Behavior*, *45*(6), 918-925.

Amsden, B., & McEntee, J. (2011). Agrileisure: re-imagining the relationship between agriculture, leisure, and social change. *Leisure/Loisir*, *35*(1), 37-48. https://doi.org/10.1080/14927713.2011.549194

Aprile, M. C., & Punzo, G. (2022). How environmental sustainability labels affect food choices: Assessing consumer preferences in southern Italy. *Journal of Cleaner Production*, *332*, 130046.

Atia, V. C., Alonso, R. C. D., Otero, M. S., & Herrera, R. P. S. (2023). Capacidad de adaptación de cooperativas rurales en el Caribe colombiano. *Revista de ciencias sociales*, *29*(3), 139-156.

Barbera, F., & Dagnes, J. (2016). Building alternatives from the bottom-up: the case of alternative food networks. *Agriculture and agricultural science procedia*, *8*, 324-331.

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.

Battilana, J., & Lee, M. (2014). Advancing research on hybrid organizing–Insights from the study of social enterprises. *Academy of Management Annals*, *8*(1), 397-441.

Bazzani, C., & Canavari, M. (2013). Alternative Agri-Food Networks and Short Food Supply Chains: a review of the literature. *Economia 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 in Food Science & Technology*, *49*, 14-23.

Beer, D., & Burrows, R. (2010). Consumption, prosumption and participatory web cultures: An introduction. In (Vol. 10, pp. 3-12): SAGE Publications Sage UK: London, England.

Bendt, P., Barthel, S., & Colding, J. (2013). Civic greening and environmental learning in public-access community gardens in Berlin. *Landscape and Urban Planning*, *109*(1), 18-30. https://doi.org/10.1016/j.landurbplan.2012.10.003

Bergan, V., Nylund, M. B., Midtbø, I. L., & Paulsen, B. H. L. (2023). The teacher's role for engagement in foraging and gardening activities in kindergarten. *Environmental Education Research*, 1-15. https://doi.org/10.1080/13504622.2023.2181271

Bieri, R. (2021). Corona verhilft der etwas anderen Landweirtschaft zu einem Schub. *Bote der Urschweiz*. https://www.bote.ch/nachrichten/zentralschweiz/corona-verhilft-der-etwas-anderen-landwirtschaft-im-kanton-luzern-zu-einem-schub-art-1309089

Blanke, J., Billieux, J., & Vögele, C. (2022). Healthy and sustainable food shopping: a survey of intentions and motivations. *Frontiers in Nutrition*, *9*, 742614.

Bonfert, B. (2022a). Community-Supported Agriculture Networks in Wales and Central Germany: Scaling Up, Out, and Deep through Local Collaboration. *Sustainability*, *14*(12), 7419. https://doi.org/10.3390/su14127419

Bonfert, B. (2022b). 'What we'd like is a CSA in every town.'Scaling community supported agriculture across the UK. *Journal of Rural Studies*, *94*, 499-508.

Bottazzi, P. (2019). Work and social-ecological transitions: A critical review of five contrasting approaches. *Sustainability*, *11*(14), 3852.

Bottazzi, P. (2024). Regenerative work: From commodity to collective action. In *Critical Sustainability Sciences* (pp. 172-184). Routledge.

Bourdieu, P. (1987). *Die feinen Unterschiede*. Suhrkamp.

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

Breuer, F. (2009). *Reflexive grounded theory: Eine Einführung für die Forschungspraxis*. VS - Verlag für Sozialwissenschaften.

Breuste, J. H. (2010). Allotment gardens as part of urban green infrastructure: actual trends and perspectives in Central Europe. *Urban biodiversity and design*, 463-475.

Breuste, J. H., & Artmann, M. (2015). Allotment gardens contribute to urban ecosystem service: case study Salzburg, Austria. *Journal of Urban Planning and Development*, *141*(3), A5014005.

Burchardt, J. (2002). *The allotment movement in England, 1793-1873*. Boydell & Brewer.

Busby, M. (2020). How coronavirus has led to a UK boom in community food growing. *The Guardian*. https://www.theguardian.com/world/2020/aug/24/how-coronavirus-has-led-to-a-uk-boom-in-community-food-growing

Cameron, J. (2015). Enterprise innovation and economic diversity in community supported agriculture: Sustaining the agricultural commons. *Making other worlds possible: Performing diverse economies*, 53-71.

Camps-Calvet, M., Langemeyer, J., Calvet-Mir, L., & Gómez-Baggethun, E. (2016). Ecosystem services provided by urban gardens in Barcelona, Spain: Insights for policy and planning. *Environmental Science & Policy*, *62*, 14-23.

Carlsson, F., Kataria, M., & Lampi, E. (2022). Sustainable food: Can information from food labels make consumers switch to meat substitutes? *Ecological economics*, *201*, 107567.

Certomà, C., & Tornaghi, C. (2015). Political gardening. Transforming cities and political agency. In (Vol. 20, pp. 1123-1131): Taylor & Francis.

Charness, G., Gneezy, U., & Kuhn, M. A. (2012). Experimental methods: Between-subject and within-subject design. *Journal of economic behavior & organization*, *81*(1), 1-8.

Christensen, S., Malberg Dyg, P., & Allenberg, K. (2018). Urban community gardening, social capital, and "integration" – a mixed method exploration of urban "integration-gardening" in Copenhagen, Denmark. *Local Environment*, *24*(3), 231-248. https://doi.org/10.1080/13549839.2018.1561655

Christie, M., Hulse, L., & Miller, P. K. (2020). Time for a (gardening) break: impacts of a "green exercise" initiative for staff health and wellbeing in a corporate environment. *Journal of Therapeutic Horticulture*, *30*(1), 1-24.

Clayton, S. (2007). Domesticated nature: Motivations for gardening and perceptions of environmental impact. *Journal of environmental psychology*, *27*(3), 215-224.

Cohen, M. J., Compain, G., Kesteloot, T., Meijer, M., Munoz, E., Murtagh, S., Saarinen, H., & van der Vaart, N. (2023). Fixing our food: Debunking 10 myths about the global food system and what drives hunger. In *Advances in Food Security and Sustainability* (Vol. 8, pp. 1-42). Elsevier.

Comor, E. (2010). Digital prosumption and alienation. *ephemera*, *10*(3), 439.

Connor, M., & Siegrist, M. (2010). Factors influencing people's acceptance of gene technology: The role of knowledge, health expectations, naturalness, and social trust. *Science communication*, *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 Quality and Preference*, *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.

Corkery, L. (2015). Community Gardens as a Platform for Education for Sustainability. *Australian Journal of Environmental Education*, *20*(1), 69-75. https://doi.org/10.1017/s0814062600002317

Cosme, I., Santos, R., & O'Neill, D. W. (2017). Assessing the degrowth discourse: A review and analysis of academic degrowth policy proposals. *Journal of Cleaner Production*, *149*, 321-334.

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

Cova, B., Dalli, D., & Zwick, D. (2011). Critical perspectives on consumers' role as 'producers': Broadening the debate on value co-creation in marketing processes. *Marketing theory*, *11*(3), 231-241. https://doi.org/10.1177/1470593111408171

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Cullen, T., Hatch, J., Martin, W., Higgins, J. W., & Sheppard, R. (2015). Food literacy: definition and framework for action. *Canadian Journal of Dietetic Practice and Research*, *76*(3), 140-145.

Cummings, W. K. (2003). *The institutions of education: A comparative study of educational development in the six core nations*. Symposium Books Ltd.

D-EDK. (2015). *Schlussbericht zum Projekt Lehrplan 21*. Luzern

Degens, P., & Lapschieß, L. (2023). Community-supported agriculture as food democratic experimentalism: Insights from Germany. *Frontiers in Sustainable Food Systems*, *7*, 36.

DeLind, L., & Ferguson, A. (1999). Is this a women's movement? The relationship of gender to community-supported agriculture in Michigan. *Human organization*, *58*(2), 190-200.

Diekmann, M., & Theuvsen, L. (2019). Non-participants interest in CSA–Insights from Germany. *Journal of Rural Studies*, *69*, 1-10.

Diekmann, M., & Theuvsen, L. (2022). Value structures determining community supported agriculture: insights from Germany. In *Rethinking Food System Transformation* (pp. 83-96). Springer.

Dornelles, A. Z., Boonstra, W. J., Delabre, I., Denney, J. M., Nunes, R. J., Jentsch, A., Nicholas, K. A., Schröter, M., Seppelt, R., & Settele, J. (2022). Transformation archetypes in global food systems. *Sustainability Science*, *17*(5), 1827-1840.

Drescher, A. W., Holmer, R. J., & Iaquinta, D. L. (2006). Urban homegardens and allotment gardens for sustainable livelihoods: Management strategies and institutional environments. In *Tropical Homegardens* (pp. 317-338). Springer. https://doi.org/10.1007/978-1-4020-4948-4_18

Drichoutis, A. C., Lazaridis, P., & Nayga Jr, R. M. (2006). Consumers' use of nutritional labels: a review of research studies and issues. *Academy of marketing science review*, *2006*, 1.

Dudda, E. (2015, 1.1. 2015). Bio ist nicht gleich Bio. *Freude am Garten*, (541.003), 62.

Egli, L., Rüschhoff, J., & Priess, J. (2023). A systematic review of the ecological, social and economic sustainability effects of community-supported agriculture. *Frontiers in Sustainable Food Systems*, *7*, 1136866.

Egli, S., Peter, M., Buser, C., Stahel, W., & Ayer, F. (2006). Mushroom picking does not impair future harvests–results of a long-term study in Switzerland. *Biological conservation*, *129*(2), 271-276.

Espelt, R. (2020). Agroecology prosumption: The role of CSA networks. *Journal of Rural Studies*, *79*, 269-275.

Familiengärtner-Verband, S. (2023). Retrieved 6.12.2023 from https://www.familiengaertner.ch/

Farmer, J. R., Chancellor, C., Gooding, A., Shubowitz, D., & Bryant, A. (2011). A Tale of Four Farmers Markets: Recreation and Leisure as a Catalyst for Sustainability. *Journal of Park & Recreation Administration*, *29*(3).

Farmer, J. R., Chancellor, C., Robinson, J. M., West, S., & Weddell, M. (2017). Agrileisure. *Journal of Leisure Research*, *46*(3), 313-328. https://doi.org/10.1080/00222216.2014.11950328

Fédération Romande d'Agriculture Contractuelle de Proximité, F. (2023). *Nos Membres*. Retrieved 28.03.2025 from https://www.fracp.ch/acps

Fiedler, M., & Madsen, G. (2015). Motivationen landwirtschaftlicher Erzeugern und Verbraucher an Community Supported Agriculture (CSA) in Sachsen.

Fischler, C. (2011). Commensality, society and culture. *Social science information*, *50*(3-4), 528-548.

FOAG. (2023). *Agriculture and Food Climate Strategy 2050*. Bern

Fonte, M. (2013). Food consumption as social practice: Solidarity purchasing groups in Rome, Italy. *Journal of Rural Studies*, *32*, 230-239.

Forbes, C. B., & Harmon, A. H. (2008). Buying into community supported agriculture: Strategies for overcoming income barriers. *Journal of Hunger & Environmental Nutrition*, *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 in Food Science & Technology*, *22*(8), 442-456.

FSVO. (2025). *Schweizer Ernährungsstrategie 2025-2032*. Bern

Fuchs, C. (2014). Digital prosumption labour on social media in the context of the capitalist regime of time. *Time & Society*, *23*(1), 97-123.

Fuchs, D., Kalfagianni, A., & Arentsen, M. (2009). Retail power, private standards, and sustainability in the global food system. *Corporate power in global agrifood governance*, 29-59.

Galhena, D. H., Freed, R., & Maredia, K. M. (2013). Home gardens: a promising approach to enhance household food security and wellbeing. *Agriculture & food security*, *2*, 1-13.

Galley, S., Mann, S., & Bottazzi, P. (2025). Contrasting Prosumption Models: Experiences, Benefits and Continuation in Allotment Gardens and Community-Supported Agriculture in Switzerland. *Societies*, *15*(5), 126.

Galley, S., Saleh, R., & Bottazzi, P. (2025a). Benefit Perceptions and their Influence on the Willingness to Join Community Supported Agriculture (CSA). *Cleaner and Responsible Consumption*, 100263.

Galley, S., Saleh, R., & Bottazzi, P. (2025b). Growing together–How institutional structures influence communal agricultural prosumption types and their potential for continuity. *Journal of Rural Studies*, *116*, 103625.

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. *Agriculture and Human Values*, *34*(2), 435-452. https://doi.org/10.1007/s10460-016-9724-1

Genter, C., Roberts, A., Richardson, J., & Sheaff, M. (2015). The contribution of allotment gardening to health and wellbeing: A systematic review of the literature. *British Journal of Occupational Therapy*, *78*(10), 593-605. https://doi.org/10.1177/0308022615599408

Gerodetti, N., & Foster, S. (2015). "Growing foods from home": food production, migrants and the changing cultural landscapes of gardens and allotments. *Landscape Research*, *41*(7), 808-819. https://doi.org/10.1080/01426397.2015.1074169

Ghose, R., & Pettygrove, M. (2014). Actors and networks in urban community garden development. *Geoforum*, *53*, 93-103. https://doi.org/10.1016/j.geoforum.2014.02.009

Gibson-Graham, J. K. (2008). Diverse economies: performative practices forother worlds'. *Progress in human geography*, *32*(5), 613-632.

Glaser, B., & Strauss, A. (1967). Grounded theory: The discovery of grounded theory. *Sociology the journal of the British sociological association*, *12*(1), 27-49.

Glover, T. D., Shinew, K. J., & Parry, D. C. (2007). Association, Sociability, and Civic Culture: The Democratic Effect of Community Gardening. *Leisure Sciences*, *27*(1), 75-92. https://doi.org/10.1080/01490400590886060

Gómez-Baggethun, E., & Barton, D. N. (2013). Classifying and valuing ecosystem services for urban planning. *Ecological economics*, *86*, 235-245.

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.

Göttl, I., & Penker, M. (2020). Institutions for collective gardening: A comparative analysis of 51 urban community gardens in Anglophone and German-Speaking countries. *International Journal of the Commons*, *14*(1).

Granovetter, M. S. (1973). The strength of weak ties. *American journal of sociology*, *78*(6), 1360-1380.

Grebitus, C., Printezis, I., & Printezis, A. (2017). Relationship between consumer behavior and success of urban agriculture. *Ecological economics*, *136*, 189-200.

Greenwood, R., & Hinings, C. R. (1996). Understanding radical organizational change: Bringing together the old and the new institutionalism. *Academy of management review*, *21*(4), 1022-1054.

Greenwood, R., Meyer, R. E., Lawrence, T. B., & Oliver, C. (2017). The Sage handbook of organizational institutionalism.

Grinde, B., & Patil, G. G. (2009). Biophilia: does visual contact with nature impact on health and well-being? *International Journal of Environmental Research and Public Health*, *6*(9), 2332-2343.

Groh, T., & McFadden, S. (1998). *Farms of tomorrow revisited*. SteinerBooks.

Grubb, M., & Vogl, C. R. (2019). Understanding food literacy in urban gardeners: A case study of the Twin Cities, Minnesota. *Sustainability*, *11*(13), 3617.

Grunert, K. G., & Wills, J. M. (2007). A review of European research on consumer response to nutrition information on food labels. *Journal of 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. *Public understanding of science*, *21*(7), 782-795.

Haack, M., Engelhardt, H., Gascoigne, C., Schrode, A., Fienitz, M., & Meyer-Ohlendorf, 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.

Haaland, C., & van Den Bosch, C. K. (2015). Challenges and strategies for urban green-space planning in cities undergoing densification: A review. *Urban Forestry & Urban Greening*, *14*(4), 760-771. https://doi.org/https://doi.org/10.1016/j.ufug.2015.07.009

Hanbury, H., Bader, C., & Moser, S. (2019). Reducing working hours as a means to foster low (er)-carbon lifestyles? An exploratory study on Swiss employees. *Sustainability*, *11*(7), 2024.

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.

Hashimoto, S., Sato, Y., & Morimoto, H. (2019). Public–private collaboration in allotment garden operation has the potential to provide ecosystem services to urban dwellers more efficiently. *Paddy and Water Environment*, *17*(3), 391-401. https://doi.org/https://doi.org/10.1007/s10333-019-00734-1

HEKS. (2025). *HEKS Neue Gärten*. Retrieved 29.5.2025 from https://www.heks.ch/was-wir-tun/unsere-schwerpunkte/inklusion/heks-neue-gaerten#unsere-g-rten

Hellmann, K.-U. (2016). Auf dem Weg in die" Prosumentengesellschaft"? Über die Stabilisierbarkeit produktiver Konsumentennetzwerke. *Vierteljahrshefte zur Wirtschaftsforschung*, *85*(2), 49-63. https://doi.org/doi:10.3790/vjh.85.2.49

Heyrman, P. (2022). Catholic Charity and Public Poor Relief in Nineteenth-century Belgium: Reconquest, Competition, Complementarity, Superiority. *European Journal for the History of Medicine and Health*, *79*(2), 253-283.

Hofmann, M., Tappert, S., Klöti, T., Weidmann, R., Lichtsteiner, S., & Home, R. (2016). Urban gardens in Switzerland: current challenges and visions for the future [Conference Paper].

Holloway, T. P., Jayasinghe, S., Dalton, L., Kilpatrick, M. L., Hughes, R., Patterson, K. A., Soward, R., Burgess, K., Byrne, N. M., & Hills, A. P. (2023). Enhancing food literacy and food security through school gardening in rural and regional communities. *International Journal of Environmental Research and Public Health*, *20*(18), 6794.

Howard, J. A. (2022). Facing up to our converging climate and food system catastrophes. In *Advances in Food Security and Sustainability* (Vol. 7, pp. 1-34). Elsevier.

Howard, P. H. (2021). *Concentration and power in the food system*. Bloomsbury Academic.

Hunter, E., Norrman, A., & Berg, E. (2022). Quantifying differences in alternative food network supply chain activities and their relationship with socio-economic outcomes. *International Food and Agribusiness Management Review*, *25*(1), 83-101.

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.

IBM. (2021). *IBM SPSS Statistics for Windows*. In IBM Corp.

Ilbery, B., & Maye, D. (2005). Food supply chains and sustainability: evidence from specialist food producers in the Scottish/English borders. *Land use policy*, *22*(4), 331-344. https://doi.org/https://doi.org/10.1016/j.landusepol.2004.06.002

Ippolito, P. M. (1999). How government policies shape the food and nutrition information environment. *Food Policy*, *24*(2-3), 295-306.

Jacob, M., & Rocha, C. (2021). Models of governance in community gardening: Administrative support fosters project longevity. *Local Environment*, *26*(5), 557-574.

Jacobi, J., Villavicencio Valdez, G. V., & Benabderrazik, K. (2021). Towards political ecologies of food. *Nature Food*, *2*(11), 835-837.

Jahrl, I., Ejderyan, O., & Salomon Cavin, J. (2022). Community gardens as a response to the contradictions of sustainable urban policy: Insights from the Swiss cities of Zurich and Lausanne [Original Research]. *Frontiers in Sustainable Food Systems*, *6*. https://doi.org/10.3389/fsufs.2022.902684

Jahrl, I., & Home, R. (2014). Encouraging organic cultivation practices in Swiss allotment gardens. *Building Organic Bridges*, *4*, 1059-1062.

Jensen, K. O. D., Denver, S., & Zanoli, R. (2011). Actual and potential development of consumer demand on the organic food market in Europe. *NJAS: Wageningen Journal of Life Sciences*, *58*(3-4), 79-84. https://doi.org/https://doi.org/10.1016/j.njas.2011.01.005

Jönsson, H., Michaud, M., & Neuman, N. (2021). What Is Commensality? A Critical Discussion of an Expanding Research Field. *International Journal of Environmental Research and Public Health*, *18*(12), 6235. https://www.mdpi.com/1660-4601/18/12/6235

Joshi, N., & Wende, W. (2022). Physically apart but socially connected: Lessons in social resilience from community gardening during the COVID-19 pandemic. *Landscape and Urban Planning*, *223*, 104418.

Kallis, G., Kostakis, V., Lange, S., Muraca, B., Paulson, S., & Schmelzer, M. (2018). Research on degrowth. *Annual review of environment and resources*, *43*(1), 291-316.

Kingsley, J., Diekmann, L., Egerer, M. H., Lin, B. B., Ossola, A., & Marsh, P. (2022). Experiences of gardening during the early stages of the COVID-19 pandemic. *Health Place*, *76*, 102854. https://doi.org/10.1016/j.healthplace.2022.102854

Kingsley, J., Foenander, E., & Bailey, A. (2019). "You feel like you're part of something bigger": exploring motivations for community garden participation in Melbourne, Australia. *BMC Public Health*, *19*(1), 1-12. https://doi.org/https://doi.org/10.1186/s12889-019-7108-3

Kirby, C. K., Specht, K., Fox-Kämper, R., Hawes, J. K., Cohen, N., Caputo, S., Ilieva, R. T., Lelievre, A., Poniży, L., & Schoen, V. (2021). Differences in motivations and social impacts across urban agriculture types: Case studies in Europe and the US. *Landscape and Urban Planning*, *212*, 104110.

Kneafsey, M., Venn, L., Schmutz, U., Balázs, B., Trenchard, L., Eyden-Wood, T., Bos, E., Sutton, G., & Blackett, M. (2013). Short food supply chains and local food systems in the EU. A state of play of their socio-economic characteristics. *JRC scientific and policy reports*, *123*, 129.

Kononowicz, W., & Gryniewicz-Balińska, K. (2016). Historical allotment gardens in Wrocław-the need to protection. *Civil and environmental engineering reports*.

Kraatz, M. S., & Block, E. S. (2008). Organizational implications of institutional pluralism. *The Sage handbook of organizational institutionalism*, *840*, 243-275.

Krasny, M., & Doyle, R. (2002). Participatory Approaches to Program Development and Engaging Youth in Research: The Case of an Inter-Generational Urban Community Gardening Program. *Journal of extension*, *40*(5), n5.

Lake, B., Milfont, T. L., & Gavin, M. C. (2012). The Relative Influence of Psycho-Social Factors on Urban Edible Gardening. *New Zealand Journal of Psychology*, *41*(1).

Lass, D., Bevis, A., Stevenson, G., Hendrickson, J., & Ruhf, K. (2003). Community supported agriculture entering the 21st century: Results from the 2001 national survey. *Amherst: University of Massachusetts, Department of Resource Economics*.

Laville, J.-L. (2010). The solidarity economy: A plural theoretical framework. *economic sociology_the european electronic newsletter*, *11*(3), 25-32.

Lawson, L. J. (2005). *City bountiful: A century of community gardening in America*. Univ of California Press.

Lee, P. Y., Lusk, K., Mirosa, 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 Quality and Preference*, *48*, 118-129.

Lee, T.-K., & Koo, C.-D. (2019). Effects of Autonomous Community Gardening Activities in the Workplace on Job Stress, Organizational Effectiveness and Self-Esteem of Public Officials Working in Shifts. *Journal of People, Plants, and Environment*, *22*(2), 119-126.

Legesse, A., Tesfay, G., & Abay, F. (2016). The impact of urban home gardening on household socio-economy. *Arts and Design Studies*, *39*(2016), 21-30.

Legewie, H., & Schervier-Legewie, B. (2004). Anselm Strauss: Research is Hard Work, it's Always a bit Suffering. Therefore, on the Other Side Research Should be Fun. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, *5(3)*. https://doi.org/https://doi.org/10.17169/fqs-5.3.562

Leung, Y. (2013). Perceived Benefits. In *Encyclopedia of Behavioral Medicine*.

Lu, I., Hanson, K. L., Pitts, S. B. J., Kolodinsky, J., Ammerman, A. S., Sitaker, M., Wang, W., Volpe, L. C., Belarmino, E. H., & Garner, J. (2021). Perceptions of nutrition education classes offered in conjunction with a community-supported agriculture intervention among low-income families. *Public health nutrition*, *24*(10), 3028-3036.

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. *Sustainable Production and Consumption*, *33*, 1-14.

Mann, S. (2015). Web-based discourse on agriculture among the general public: Comparing Germany and Switzerland. *British Food Journal*, *117*(1), 388-399.

McFarland, A. L. (2017). The relationship between the use of green spaces and public gardens in the work place on mental well-being, quality of life, and job satisfaction for employees and volunteers. *HortTechnology*, *27*(2), 187-198.

McVey, D., Nash, R., & Stansbie, P. (2018). The motivations and experiences of community garden participants in Edinburgh, Scotland. *Regional Studies, Regional Science*, *5*(1), 40-56. https://doi.org/https://doi.org/10.1080/21681376.2017.1409650

Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W. (1972). The limits to growth. In (pp. 25-29). Universe Books.

Medici, M., Canavari, M., & Castellini, A. (2021). Exploring the economic, social, and environmental dimensions of community-supported agriculture in Italy. *Journal of Cleaner Production*, *316*, 128233. https://doi.org/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. *Journal of Retailing and Consumer Services*, *21*(4), 510-519.

Meister, L. (2020, 28.5.2020). Baslerinnen und Basler zieht es ins Grüne: Verlangen nach Familiengarten-Idylle wächst. *BZ Basel*. https://www.bzbasel.ch/basel/basel-stadt/baslerinnen-und-basler-zieht-es-ins-grune-verlangen-nach-familiengarten-idylle-wachst-ld.1420766

Mesek, M., Pérez-Landa, A. J., Smith, A. M., Stouraitis, V., & Sheikh, S. (2024). Mind the gaps: Challenges of implementing policy for Scotland's rural third sector. *The International Journal of Entrepreneurship and Innovation*, *25*(2), 90-103.

Mintzberg, H. (1989). *The structuring of organizations*. Springer.

Mullins, L., Charlebois, S., Finch, E., & Music, J. (2021). Home food gardening in Canada in response to the COVID-19 pandemic. *Sustainability*, *13*(6), 3056. https://doi.org/https://doi.org/10.3390/su13063056

Music, J., Finch, E., Gone, P., Toze, S., Charlebois, S., & Mullins, L. (2021). Pandemic Victory Gardens: Potential for local land use policies. *Land use policy*, *109*, 105600. https://doi.org/https://doi.org/10.1016/j.landusepol.2021.105600

Nettle, C. (2016). *Community gardening as social action*. Routledge.

Nilsen, M., & Barnes, B. M. (2014). *The Working Man's Green Space: Allotment Gardens in England, France, and Germany, 1870-1919*. University of Virginia Press.

North, D. C. (1990). Institutions, institutional change and economic performance. *Cambridge University*.

O'Rourke, D., & Ringer, A. (2016). The impact of sustainability information on consumer decision making. *Journal of Industrial Ecology*, *20*(4), 882-892.

Okvat, H. A., & Zautra, A. J. (2011). Community gardening: a parsimonious path to individual, community, and environmental resilience. *Am J Community Psychol*, *47*(3-4), 374-387. https://doi.org/10.1007/s10464-010-9404-z

Opitz, I., Specht, K., Piorr, A., Siebert, R., & Zasada, I. (2017). Effects of consumer-producer interactions in alternative food networks on consumers' learning about food and agriculture. *Moravian Geographical Reports*, *25*(3), 181-191.

Opitz, I., Zoll, F., Doerenberg, A., Specht, K., Siebert, R., Piorr, A., Bergens, R., Dönitz, E., & Warnke, P. (2017). Future| Food| Commons-. Alternative Netzwerke zur Nahrungsmittelversorgung an der Schnittstelle zwischen Stadt und Land. In (Vol. 1). Müncheberg: agrathaer GmbH und Leibniz-Zentrum für Agrarlandforschung (ZALF) e.V.

Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge university press.

Ostrom, M. R. (2007). Community supported agriculture as an agent of change. *Remaking the North American food system: Strategies for sustainability*, 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. *Public understanding of science*, *33*(2), 241-259.

Palmioli, L., Grando, S., Di Iacovo, F., Fastelli, L., Galli, F., Prosperi, P., Rovai, M., & Brunori, G. (2020). Small farms' strategies between self-provision and socio-economic integration: Effects

on food system capacity to provide food and nutrition security. *Local Environment*, *25*(1), 43-56. https://doi.org/https://doi.org/10.1080/13549839.2019.1697869

Palthe, J. (2014). Regulative, normative, and cognitive elements of organizations: Implications for managing change. *Management and organizational studies*, *1*(2), 59-66.

Paul, M. (2019). Community-supported agriculture in the United States: Social, ecological, and economic benefits to farming. *Journal of Agrarian Change*, *19*(1), 162-180.

Peters, B. G. (2019). *Institutional theory in political science: The new institutionalism*. Edward Elgar Publishing.

Petrini, C. (2003). *Slow food: The case for taste*. Columbia University Press.

Podda, A., Loconto, A. M., Arcidiacono, D., & Maestripieri, L. (2021). Exploring prosumption: Reconfiguring labor through rural-urban food networks? In (Vol. 82, pp. 442-446): Elsevier.

Pole, A., & Gray, M. (2013). Farming alone? What's up with the "C" in community supported agriculture. *Agriculture and Human Values*, *30*, 85-100.

Poniży, L., Latkowska, M. J., Breuste, J., Hursthouse, A., Joimel, S., Külvik, M., Leitão, T. E., Mizgajski, A., Voigt, A., & Kacprzak, E. (2021). The rich diversity of urban allotment gardens in Europe: contemporary trends in the context of historical, socio-economic and legal conditions. *Sustainability*, *13*(19), 11076. https://doi.org/https://doi.org/10.3390/su131911076

Ponstingel, D. (2023). Community gardens as commons through the lens of the diverse economies framework: A case study of Austin, TX. *Applied Geography*, *154*, 102945.

Porter, R., & McIlvaine-Newsad, H. (2013). Gardening in green space for environmental justice: Food security, leisure and social capital. *Leisure/Loisir*, *37*(4), 379-395. https://doi.org/https://doi.org/10.1080/14927713.2014.906172

Powell, W. W., & DiMaggio, P. J. (2012). *The new institutionalism in organizational analysis*. University of Chicago press.

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., Vanhuyse, F., Engström, E., & Lambe, F. (2022). Information as an enabler of sustainable food choices: A behavioural approach to understanding consumer decision-making. *Sustainable Production and Consumption*, *31*, 642-656.

Ritzer, G. (2015). Prosumer capitalism. *The Sociological Quarterly*, *56*(3), 413-445.

Ritzer, G., & Jurgenson, N. (2010). Production, consumption, prosumption: The nature of capitalism in the age of the digital 'prosumer'. *Journal of consumer culture*, *10*(1), 13-36. https://doi.org/https://doi.org/10.1177/146954050935467

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. *Agriculture and Human Values*, *34*, 855-869.

Ruef, M., & Patterson, K. (2009). Credit and classification: The impact of industry boundaries in nineteenth-century America. *Administrative Science Quarterly*, *54*(3), 486-520.

RVL, V. (2022). *Initiativen*. Retrieved 28.03.2025 from https://www.regionalevertragslandwirtschaft.ch/rvl/index.php/initiativen

Sahakian, M., & Rossier, C. (2022). The societal conditions for achieving sufficiency through voluntary work time reduction: Results of a pilot study in Western Switzerland. *Frontiers in Sustainability*, *3*, 956055.

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 Quality and Preference*, *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.

Savarese, M., Chamberlain, K., & Graffigna, G. (2020). Co-creating value in sustainable and alternative food networks: the case of community supported agriculture in New Zealand. *Sustainability*, *12*(3), 1252. https://doi.org/https://doi.org/10.3390/su12031252

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. *Regional Environmental Change*, *25*(1), 1-14.

Schmutz, U., Turner, M. L., Williams, S., Devereaux, M., & Davies, G. (2014). The benefits of gardening and food growing for health and wellbeing.

Schoen, V., Blythe, C., Caputo, S., Fox-Kämper, R., Specht, K., Fargue-Lelièvre, A., Cohen, N., Poniży, L., & Fedeńczak, K. (2021). "We Have Been Part of the Response": The Effects of COVID-19 on Community and Allotment Gardens in the Global North [Original Research]. *Frontiers in Sustainable Food Systems*, *5*. https://doi.org/10.3389/fsufs.2021.732641

Schwerzmann, L. (2013). *Kleingärten: Traditionelle und neue Formen des gemeinschaftlichen Gärtnerns im städtischen Umfeld*. vdf Hochschulverlag AG.

Scott, T. L., Masser, B. M., & Pachana, N. A. (2020). Positive aging benefits of home and community gardening activities: Older adults report enhanced self-esteem, productive endeavours, social engagement and exercise. *SAGE Open Med*, *8*, 2050312120901732. https://doi.org/10.1177/2050312120901732

Scott, W. R. (1995). *Institutions and Organizations. Ideas, Interests and Identities.* . Sage.

Scott, W. R. (2005). Institutional theory: Contributing to a theoretical research program. *Great minds in management: The process of theory development*, *37*(2), 460-484.

Sharp, E., Tsang, S., & Egli, V. (2024). Children's food gardening: valuing experiential, intergenerational and multi-cultural learning. *Kōtuitui: New Zealand Journal of Social Sciences Online*, 1-25.

Sharp, J., Imerman, E., & Peters, G. (2002). Community supported agriculture (CSA): Building community among farmers and non-farmers. *Journal of extension*, *40*(3), 1-6. https://tigerprints.clemson.edu/joe/vol40/iss3/6

Shirvell, B. (2021, 10.3.2021). Is the Pandemic CSA Boom Survive Beyond the Pandemic? *Civil Eats*. https://civileats.com/about/

Siegrist, M. (2008). Factors influencing public acceptance of innovative food technologies and products. *Trends in Food Science & Technology*, *19*(11), 603-608.

Siegrist, M., & Cvetkovich, G. (2000). Perception of hazards: The role of social trust and knowledge. *Risk analysis*, *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? *Public understanding of science*, *25*(4), 400-414.

Soga, M., Gaston, K. J., & Yamaura, Y. (2017). Gardening is beneficial for health: A meta-analysis. *Preventive medicine reports*, *5*, 92-99.

Sowińska-Świerkosz, B., Michalik-Śnieżek, M., & Bieske-Matejak, A. (2021). Can allotment gardens (AGs) be considered an example of nature-based solutions (NBS) based on the use of historical green infrastructure? *Sustainability*, *13*(2), 835.

Spahiu, E., Çitozi, R., & Paloka, B. (2022). Healthy eating behaviors and the role of parents and family in children aged 11, 13 and 15 years. *Scientific Journal of Sport and Performance*, *1*(4), 378-384.

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.

Speak, A., Mizgajski, A., & Borysiak, J. (2015). Allotment gardens and parks: Provision of ecosystem services with an emphasis on biodiversity. *Urban Forestry & Urban Greening*, *14*(4), 772-781. https://doi.org/https://doi.org/10.1016/j.ufug.2015.07.007

Stiegler, B. (2018). *Automatic society, volume 1: The future of work*. John Wiley & Sons.

Storksdiek, g. B. S., Kardakis, T., Wollgast, J., Nelson, M., & Louro, C. S. (2014). Mapping of national school food policies across the EU28 plus Norway and Switzerland.

Strauss, A. L., Corbin, J. M., Niewiarra, S., & Legewie, H. (1996). *Grounded theory: Grundlagen qualitativer sozialforschung*. Beltz, Psychologie-Verlag-Union Weinheim.

Szczepańska, M., Kacprzak, E., Maćkiewicz, B., & Poniży, L. (2021). How are allotment gardens managed? A comparative study of usage and development in contemporary urban space in Germany and Poland. *Moravian Geographical Reports*, *29*(3), 231-250.

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. *International Journal of Gastronomy and Food Science*, 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.

Teuber, S., Schmidt, K., Kühn, P., & Scholten, T. (2019). Engaging with urban green spaces–a comparison of urban and rural allotment gardens in Southwestern Germany. *Urban Forestry & Urban Greening*, *43*, 126381.

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*.

Thorpe, H. (1975). The homely allotment: from rural dole to urban amenity: a neglected aspect of urban land use. *Geography*, *60*(3), 169-183.

Tidball, K. G., Krasny, M. E., Svendsen, E., Campbell, L., & Helphand, K. (2010). Stewardship, learning, and memory in disaster resilience. *Environmental Education Research*, *16*(5-6), 591-609. https://doi.org/https://doi.org/10.1080/13504622.2010.505437

Timmermann, C., & Félix, G. F. (2015). Agroecology as a vehicle for contributive justice. *Agriculture and Human Values*, *32*, 523-538.

Toffler, A. (1980). *The third wave*. Collins.

Tubiello, F. N., Karl, K., Flammini, A., Gütschow, J., Obli-Laryea, G., Conchedda, G., Pan, X., Qi, S. Y., Halldórudóttir Heiðarsdóttir, H., & Wanner, N. (2022). Pre-and post-production processes

increasingly dominate greenhouse gas emissions from agri-food systems. *Earth System Science Data*, *14*(4), 1795-1809.

UN. (2015). Resolution adopted by the General Assembly on 25 September 2015. Transforming our world: the 2030

Agenda for Sustainable Development. General Assembly. Seventieth session Agenda items 15 and 116. Oct. 21st. , *Seventieth session Agenda items 15 and 116. Oct. 21st.* .

Van den Berg, A. E., van Winsum-Westra, M., De Vries, S., & Van Dillen, S. M. (2010). Allotment gardening and health: a comparative survey among allotment gardeners and their neighbors without an allotment. *Environmental Health*, *9*(1), 1-12. https://doi.org/https://doi.org/10.1186/1476-069X-9-74

Van Der Merwe, D., Kempen, E. L., Breedt, S., & De Beer, H. (2010). Food choice: student consumers' decision-making process regarding food products with limited label information. *International Journal of Consumer Studies*, *34*(1), 11-18.

Van En, R. (1995). Eating for your community: Towards agriculture supported community. *Context*, *42*(Fall), 29-31.

Vasquez, A., Sherwood, N. E., Larson, N., & Story, M. (2017). Community-supported agriculture as a dietary and health improvement strategy: A narrative review. *Journal of the Academy of Nutrition and Dietetics*, *117*(1), 83-94.

Vassalos, M., Gao, Z., & Zhang, L. (2017). Factors affecting current and future CSA participation. *Sustainability*, *9*(3), 478.

Veen, E. J., Dagevos, H., & Jansma, J. E. (2020). Pragmatic Prosumption: Searching for Food Prosumers in the Netherlands. *Sociologia Ruralis*, *61*(1), 255-277. https://doi.org/10.1111/soru.12323

Veen, E. J., & Dagevos, M. (2019). Diversifying economic practices in meal sharing and community gardening. *Urban Agriculture & Regional Food Systems*, *4*(1), 1-10.

VERBI. (2022). *MAXQDA*. In VERBI SOFTWARE.

Vermeulen, S. J., Campbell, B. M., & Ingram, J. S. (2012). Climate change and food systems. *Annual review of environment and resources*, *37*(1), 195-222.

Vidgen, H. A., & Gallegos, D. (2014). Defining food literacy and its components. *Appetite*, *76*, 50-59.

Volken, S., & Bottazzi, P. (2024). Sustainable farm work in agroecology: how do systemic factors matter? *Agriculture and Human Values*, 1-16.

Volz, P., Weckenbrock, P., Nicolas, C., Jocelyn, P., & Dezsény, Z. (2016). Overview of community supported agriculture in Europe. In: European CSA Research Group.

Von Hippel, E. (2005). Democratizing innovation: The evolving phenomenon of user innovation. *Journal für Betriebswirtschaft*, *55*(1), 63-78. https://doi.org/https://doi.org/10.1260/175722209787951224

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.

Wang, H., Qiu, F., & Swallow, B. (2014). Can community gardens and farmers' markets relieve food desert problems? A study of Edmonton, Canada. *Applied Geography*, *55*, 127-137.

Webb, P., Benton, T. G., Beddington, J., Flynn, D., Kelly, N. M., & Thomas, S. M. (2020). The urgency of food system transformation is now irrefutable. *Nature Food*, *1*(10), 584-585.

Wellner, M., & Theuvsen, L. (2016). Community Supported Agriculture als neuer Impuls für die Regionalvermarktung? Stand der Forschung und Abgrenzung von anderen Alternativen Lebensmittelnetzwerken.

Wells, B., Gradwell, S., & Yoder, R. (1999). Growing food, growing community: Community Supported Agriculture in rural Iowa. *Community development journal*, *34*(1), 38-46. https://doi.org/https://doi.org/10.1093/cdj/34.1.38

Wilson, E. O. (2021). Biophilia. In *Biophilia*. Harvard university press.

Winkler, B., Maier, A., & Lewandowski, I. (2019). Urban Gardening in Germany: Cultivating a Sustainable Lifestyle for the Societal Transition to a Bioeconomy. *Sustainability*, *11*(3), 801. https://www.mdpi.com/2071-1050/11/3/801

Winkler, C., & Axhausen, K. W. (2024). How do the Swiss spend their time? *Findings*.

Wood, C. J., Pretty, J., & Griffin, M. (2016). A case-control study of the health and well-being benefits of allotment gardening. *J Public Health (Oxf)*, *38*(3), e336-e344. https://doi.org/10.1093/pubmed/fdv146

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.

Xu, X., Cai, H., Zhang, J., & Xia, T. (2024). The effects of parental food education on children's food literacy: the mediating role of parent–child relationship and learning motivation. *Nutrients*, *16*(15), 2564.

Ye, M., & Yosshida, T. (2019). Users' Behaviors and Evaluations of Allotment Gardens—An Empirical Research of Four Allotment Gardens in Beijing. *Urban and regional planning review*, *6*, 1-21.

Young, C., Hofmann, M., Frey, D., Moretti, M., & Bauer, N. (2020). Psychological restoration in urban gardens related to garden type, biodiversity and garden-related stress. *Landscape and Urban Planning*, *198*, 103777.

Young, O. R. (2002). *The institutional dimensions of environmental change: fit, interplay, and scale*. MIT press.

Zoll, F., Kirby, C. K., Specht, K., & Siebert, R. (2023). Exploring member trust in German community-supported agriculture: a multiple regression analysis. *Agriculture and Human Values*, *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. *International Journal of Consumer Studies*, *42*(1), 101-110.

Zuckerman, E. W. (1999). The categorical imperative: Securities analysts and the illegitimacy discount. *American journal of sociology*, *104*(5), 1398-1438.

6. APPENDIX

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	.57***	.64***	.58***	.62***	.47***	.66***	.47***
Cronbach's alpha	.72	.77	.72	.75	.63	.77	.62

***p<.001

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) Overall Benefit	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)
Cronbach's alpha	.79	.82	.72	.82	.70	.78	.87

***p<.001

Table A6: Correlation benefit perceptions

Correlation Overall Sample	1.	2.	3,
1. Individual Benefit	-	-	
2. Social Benefit	.65***	-	
3. Farmer Benefit	.42***	.62***	-

*: p<0.05, **: p<0.01, ***: p<0.001

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<0.05, **: p<0.01, ***: p<0.001

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<0.05, **: p<0.01, ***: p<0.001

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<0.05, **: p<0.01, ***: p<0.001

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<0.05, **: p<0.01, ***: p<0.001

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<0.05, **: p<0.01, ***: p<0.001

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<0.05, **: p<0.01, ***: p<0.001

Declaration of consent

on the basis of Article 18 of the PromR Phil.-nat. 19

Name/First Name: Galley, Stefan Tim Robert

Registration Number: 21-141-387

Study program: Doctorate in Geography

Bachelor ☐ Master ☐ Dissertation ☑

Title of the thesis: EXPLORING COMMUNAL AGRICULTURAL PROSUMPTION
Fostering Alternative Food Networks in Switzerland

Supervisor: Dr. Patrick Bottazzi

I declare herewith that this thesis is my own work and that I have not used any sources other than those stated. I have indicated the adoption of quotations as well as thoughts taken from other authors as such in the thesis. I am aware that the Senate pursuant to Article 36 paragraph 1 litera r of the University Act of September 5th, 1996 and Article 69 of the University Statute of June 7th, 2011 is authorized to revoke the doctoral degree awarded on the basis of this thesis.
For the purposes of evaluation and verification of compliance with the declaration of originality and the regulations governing plagiarism, I hereby grant the University of Bern the right to process my personal data and to perform the acts of use this requires, in particular, to reproduce the written thesis and to store it permanently in a database, and to use said database, or to make said database available, to enable comparison with theses submitted by others.

Konstanz, 30.6.2025

Place/Date

Galley Stefan
Y9SKTF
Signature

Digital unterschrieben von Galley Stefan Y9SKTF
Datum: 2025.06.30 11:01:41 +02'00'