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# COMMUNITY SUPPORTED AGRICULTURE (CSA) AS A FORM OF SUSTAINABLE CONSUMPTION

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**Abstract.** The article describes the activities and specificity of so-called CSA groups (Community Supported Agriculture) as one of the forms of the observable trend related to the formation of different types of informal, mutual social initiatives. Certainly such activities can be categorized as sustainable consumption. The article presents the results of research conducted on CSA groups operating in Poland. This study aims is to contribute to the discussion by combining data from basic research with a comparative analysis. The research shows that the various CSA-projects differ a lot from each other and that there is a variety of approaches within the CSA-movement.

Key words: CSA groups, Community Supported Agriculture, sustainable consumption

#### INTRODUCTION

Europe has experienced an incomparable modernization in agricultural production with technological progress and a green revolution, supported by an EU framework known as Common Agricultural Policy (CAP). This has tremendously increased productivity, provided food security and reduced food prices. However, the advancement of this new food regime often comes along with undesirable social and environmental consequences which have received more widespread attention recently [Schlicht et al. 2012].

As a reaction to this, new modes of agriculture have developed or re-developed in Europe, especially a recent shift to certified organic production, local food supply chains and new consumer-producer relationships. A promising approach addressing sustainable, local production and direct and partnership-based consumption has become known as

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Community Supported Agriculture (CSA). In contrast to intensive industrial farming and centralized food industries, CSA promotes a sustainable and diversified pattern of regional and local production with closer connections and solidarity between farmers and consumers, and with a high care for public health and environment. Such form of sustainable consumption relates to the reorientation of consumer behavior, changes in quality of life and a change of attitude: from egocentric to ecocentric one.

#### MATERIAL AND METHODS

Author used the descriptive method to analyze results of research related to American market and conducted a questionnaire survey on CSA groups operating in Poland.

Author identified 5 such groups in Poland: (a) active from 2012: RWS Świerże Panki – group of 27 households in Warsaw cooperating with 2 Masovia organic farms; pioneering group in Poland; (b) active from 2014: RWS Dobrodziej Szczecin – group of 17 households in Szczecin cooperating with 1 organic farm; Pora na Czosnek Poznań – group of 34 households in Poznań cooperating with 1 organic farm; RWS Wrocław – group of 36 households in Wrocław cooperating with 2 organic farms; Dobrzyń nad Wisłą – group of 20 households in Warsaw cooperating with 1 organic farm. Some Internet sources are mentioning also 6<sup>th</sup> group operating in Opole but author was not able to identify them.

The survey has been conducted in September 2014 via Internet. It has been divided into two parts: questionnaire for consumers and the other one – for farmers; 37 filled-out questionnaires were received from consumers, members of CSA groups (out of total identified 134 members – 28%) and 2 filled-out questionnaires were received from farmers (out of 6 farmers – one and the same farmer cooperates with 2 CSA groups – in Szczecin and Poznań).

#### THEORY AND BACKGROUND

# Characteristics of Community Supported Agriculture (CSA) groups

The concept of CSA originated in Switzerland and Japan in 1960s [Farnsworth et al. 1996]. It was brought to the United States by Jan Vander Tuin from Switzerland in 1984 [Allen et al. 2006]. In 1986, there were 2 CSA groups operating in the United States, by 2005 – there were 1144 [Adam 2006]. Growing interest in local foods in the US is the result of several movements [Guptill and Wilkins 2002]. The environmental movement encourages people to consider geographic dimensions in their food choices. Long-distance transport of food is considered to contribute to greenhouse gas emissions. The community food-security movement seeks to enhance access to safe, healthy, and culturally appropriate food for all consumers. Challenges to the dominance of large corporations also have contributed to efforts to expand local food. The Slow Food movement, which originated in Italy, is a response to homogenous, mass-produced food production, and the "fast" nature of people's lives, by encouraging traditional ways of growing, producing,

and preparing food. The local food movement also reflects an increasing interest by consumers in supporting local farmers and in better understanding the origin of their food [Ilbery and Maye 2005; Pirog 2009].

The original idea of CSA was to re-establish a sense of connection to the land for urban citizens and to foster a strong sense of community and cooperation with a goal to provide food security for disadvantaged groups. Community Supported Agriculture consist of food producers and consumers providing mutual support and sharing the risks and benefits of food production. Typically, members of the farm pledge in advance to cover the anticipated costs of the farm operation and farmer's salary. In return, they receive shares in the farm's produce throughout the growing season, as well as satisfaction gained from reconnecting to the land and participating directly in food production. Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests.

Two distinct types of CSAs have developed:

- farmer-driven, subscription CSA in which the farmer organizes the group and makes
  most of the management decisions; farm work is not required of subscribers; a permutation is the farmer cooperative, where two or more farmers organize to produce
  a variety of products for the CSA basket;
- shareholder, consumer-driven CSA in which core group organizes subscribers and hires the farmer; the core group may be not-for-profit organization and land may be purchased, leased, or rented.

Activities of Community Supported Agriculture (CSA) groups are designed as a form of cooperation between consumers and food producers that creates favorable conditions for the activities of small farms. Such actions are especially common in large cities and among young generation who are seeking access to organic food, and do not want to pay a high price for it.

The success of any CSA depends heavily on highly developed organizational and communication skills [Brown and Miller 2008]. Money raised by the sale of CSA shares is used as operating capital to finance farm production activities, and consumers typically receive weekly deliveries of fresh produce (occasionally meat and eggs) from the farmers. CSAs allow producers to lock in their prices and receive their income up front, and consumers share in the risks of variability in output due to weather or pest conditions.

#### RESULTS AND DISCUSSION

# Research results from US-operating CSAs

In 2003 the Leopold Center for Sustainable Agriculture at Iowa State University conducted a study of CSA farms in the Midwest, surveying 55 farm operators. Ninety seven percent of the farmers were "completely satisfied" or "satisfied" with their CSA operations. They believed that 83% of their members were "satisfied most of the time" and 17% "very satisfied". Farmers identified causes of dissatisfaction for their CSA members as "too much produce, too much food preparation time, and lack of product choice". Surveyed CSA operators were more highly educated and younger than the national average.

[McBride 2005]. A major conclusion of the Leopold Center study was that share prices should be increased to provide a better return to the farmer. The study ignored social justice aims common to other types of CSAs, as well as integration of CSAs into a comprehensive local food-system plan with many types of services, programs, and activities to ensure community food security.

Kolodinsky and Pelch studied CSAs from the point of view of consumer acceptance [Kolodinsky and Pelch 1997]. They found the likelihood of membership in a CSA to be highly correlated with food shoppers who have a high degree of education, who buy organic, and who consider political/economic/social factors in choosing their off-season (winter) produce venue. Likelihood of CSA membership was negatively correlated with the presence of children or teens in a family, having adequate storage space for canned or frozen foods (presumably lessening the need for fresh produce every week), and lower educational attainment. While income was found not to be correlated with the decision to join a CSA, higher cost of share per person decreases the likelihood of membership. Shareholders did not find the social and aesthetic meaning in the CSA system but viewed it primarily as a source of fresh produce.

CSA customers report numerous social, economic, and nutritional benefits from participation in the arrangement [Farnsworth et al. 1996, Ostrom 2007]. In several studies reported by Brown and Miller [2008], most CSA farmers mainly depend on income from their CSA shares and reported gross farm incomes that ranged from 15 thousand to 35 thousand USD per year. However, financial analyses have found that CSA farmers often fail to cover their full economic costs and suggest that typical share prices would need to double or triple to be competitive with market rates of return [Sabih and Baker 2000, Oberholtzer 2004]. This result is supported by surveys in which the majority of CSA producers were not satisfied with their ability to cover their operating costs or provide sufficient compensation for their work on the farm, although most were still very satisfied overall with their decision to have CSAs [Lass et al. 2003, Tegtmeier and Duffy 2005, Ostrom 2007].

In other studies, the role of demographic characteristics has been studied. Consumers who were female, older, more educated, higher income earners, and members of environmental groups were more likely to buy local food [Brooker and Eastwood 1989, Eastwood 1996, Eastwood et al. 1999, Brown 2003]. CSA membership was found to be positively linked to higher education, a preference for organic products, and finding out about the CSA via word-of-mouth [Zepeda and Leviten-Reid 2004].

Local foods may be more difficult for consumers to find than mainstream food due to seasonal constraints, limited accessibility, or limited awareness of farmers' markets accessibility [Hardesty 2008]. These barriers may be considered as transaction costs, which include costs of finding local food markets, obtaining information on their product offerings, obtaining access to markets, and searching for the best prices. Surveys suggest that reasons for not shopping at a farmers' market include: absence of availability in the patron's vicinity; lack of knowledge about market existence; inconvenience (too far to drive); food of comparable quality at more convenient locations; and prices being too high [Eastwood 1996, Eastwood et al. 1999].

A lack of product choice and the amount of produce provided, as well as transportation and inconvenience of pickup place or time, has been found to deter CSA

membership [Zepeda and Leviten-Reid 2004]. Income does not seem to be an important factor in choice of where to purchase fresh produce, but time-constraining factors, such as presence of children under the age of 18, do appear to matter [Kolondinsky and Pelch 1997, Keeling-Bond et al. 2009].

Other studies examined the determinants of willingness to pay for locally produced food. Taken together, available studies suggest that purchase of local food is widespread, and willingness to pay a premium is not limited to consumers with higher incomes. Consumers with higher willingness to pay placed higher importance on quality [Brown 2003, Carpio and Isengildina-Massa 2009], nutrition [Loureiro and Hine 2002], the environment [Brown 2003], and helping farmers in their State [Carpio and Isengildina-Massa 2009]. The last determinant could be related to the high level of consumer ethnocentrism [Zięba and Ertmański 2006].

# Research results from Poland operating CSAs

It is important to note that the data were not analyzed statistically due to small size of a sample.

**CSA farmers.** They can be characterized as youthful and highly educated. CSA farms are small farms producing organically. The farmers do not have long-term experience in collaboration with CSA groups, only 1–2 years. One farmer is collaborating only with one CSA group, the other one – with two. Besides this collaboration, they are delivering their products to stores offering organic products. Only a small portion of land is being used for the CSA operation.

CSA farms use a diverse combination of labor including principle farmers and hired workers as well as family and shareholder labor. CSA farms fit into the "small farms" category by physical land measures.

Farmers evaluate the cooperation with CSA groups well. They are "very satisfied" with timely payments for products, and "satisfied" with group organization and communication. As the area for improvements, they are pointing the communication techniques.

Farmers agree that computers greatly enhance the cooperation with CSA – not only in scheduling crop production and harvest, but keeping track of the makeup of the weekly basket. Members are being informed by e-mailing schedule changes and personal notes. Enhanced communication helps build community and increases the likelihood that the CSA will survive and prosper.

**CSA members.** Respondents were 81% women and 19% man, what shows who in the household is taking care for food supplies, and what is in line with the typical Polish family model; 43% of respondents were 26–32 years old, 30% were 33–40 years old. The vast majority of respondents (78%) stay in relationships, 80% are formal relationships – families; 49% of CSA members do not have children, 43% have one or two children; 46% of respondents evaluate their economic situation as good, 35% as average; 84% of CSA members have higher education, including 13% holding PhD degree.

Majority of respondents are involved in CSA activities for 1 year or less. It is obvious because of the novelty of this form of cooperation on the Polish market. They learned about the existence of such initiative through word-of-mouth channels – usually (43%)

from family and friends, sometimes (27%) via social media. As a main factor in joining the group they mention willingness to buy healthy food (65%) and possibility to shorten the delivery chain (27%). None of them mentioned social factors.

Only 14% of interviewed CSA members agreed that they had joined the group in some special moment of their life (e.g. childbirth, health deterioration/illness, transition to vegetarianism).

Most of the participants (60%) are engaged in CSA life in an active way (taking the lead, assuming some obligations) and 57% describe themselves as "social-worker". The respondents evaluate the cooperation with farmers well and CSA as a group average/well. Mean scores for some characteristics of the cooperation are shown in Table 1 (5-point Likert scale, where 1 = completely unsatisfied, 5 = very satisfied).

Evaluated characteristic	Mean score	
Place of products collection	4.46	
Quality of products	4.41	
Process of products collection	4.08	
Product supply organization	3.89	
Variety of products	3.84	
Group organization	3.76	

Table 1. Mean scores for characteristics of the cooperation within CSA group

Source: Own research.

Every second respondent points some difficulties, shortcomings in the operation of a group, except of the factors reviewed previously. They were pointing out: no group organizer, failure to comply with the CSA rules and procedures, the reluctance in taking rosters, discrepancies between vegetables listed versus actually delivered, no possibility of individual composition of the package, lack of commitment of some group participants, the lack of understanding of the concept. Surprisingly, 65% of respondents do not want more formalization/structuring of the group (e.g. the board, association etc.) what – theoretically – could help to overcome the mentioned problems.

Fifty one percent of CSA groups organize integration, social gatherings for their members. Among the ones that do not practice it, 42% of members are not interested in changing it.

CSA members agree that computers greatly enhance the work of a CSA. Regular email communication is being used coordinate products collection, but also to organize informal meetings or send recipes.

Promotion of CSA initiatives takes advantage of free media outlets whenever possible. Promotion is being realized through related venues such as health food stores and farmers' markets, printed materials such as brochures and flyers, web pages, webinars and social media.

After the season (it usually lasts from May through October) the CSA members are trying to organize meeting summarizing the activities from the year, to discuss and iron out any problems before the next season.

# **CONCLUSIONS**

In contrast to conventional farming, CSA promotes a sustainable and diversified pattern of regional and local production with closer connections between farmers and consumers, and with a high care for health and environment. CSA does not only demand food-security but also food sovereignty. Putting these high aspirations into practice takes endurance and dedication especially if the initiatives work without external support. As CSA has an inherently local approach, it is not surprising that many initiatives have only limited capacities for structural advancement of the concept but rather focus on consolidating their economic organism in their locality.

Farmers' markets and CSAs have grown dramatically in number and size over the past 10–20 years [Feenstra et al. 2003, Varner and Otto 2008]. They have been an important opportunity for producers to develop business and marketing skills, and they play a major role in the creation of more localized food systems [Gillespie et al. 2007]. Although CSAs currently only serve a small proportion of the consumer food market, the CSA model offers an alternative approach to mainstream marketing channels for producers and consumers in some regions.

Concepts like CSA can achieve many different (sometimes contradictory) ends. CSAs have been envisioned as vehicles to build community, preserve local food production systems, protect the environment, and provide for the poor. Perhaps unstated is the implication that farming as a business should support a middle-class lifestyle.

Many people see a loss of control over their own food supply. Superstore prices have already begun to reflect rapidly rising transportation costs, which leads to questions about the long-term sustainability of a food system based solely on comparative advantage and low-cost energy.

It is hard to generalize CSA because big differences between and within countries still exist and the priorities of the various CSA project activists have a high influence on the form of the different CSA initiatives.

The following points are important to understand the different prevalence of CSA in their respective regions:

- interest in fresh regional food and food quality (food culture in the various countries);
- publicity and communication of the initiatives (advocating CSA rather undogmatically as a political project and economic alternative or simply promoting fresh regional food; dealing in certified organic food only etc.);
- spread of organic shops and box schemes;
- networking;
- connectedness with local, regional or national politics.

The main question seems to be if CSA in Europe can become a comprehensive concept with decentralize coverage in almost any region. Scope for making the idea more convenient certainly exists, e.g. through the use of modern communication technologies. The question is in how far this is wanted and in how far CSA can be seen as a "main-stream" concept.

#### REFERENCES

Adam, K.L. (2006). Community Supported Agriculture, National Sustainable Agriculture Information Service. National Center for Appropriate Technology, Butte, MT.

- Allen, T. Gabe T., McConnon J. (2006). The Economic Contribution of Agri-Tourism to the Maine Economy. Orono: University of Maine Department of Resource Economics and Policy.
- Brooker, J.R., Eastwood, D.B. (1989). Using State Logos to Increase Purchases of Selected Food Products. Journal of Food Distribution Research, 20, 175–183.
- Brown, C. (2003). Consumers' Preferences for Locally Produced Food: A Study in Southeast Missouri. American Journal of Alternative Agriculture, 18, 213–224.
- Brown, C., Miller, S. (2008). Community Supported Agriculture. American Journal of Agricultural Economics, 90(5), 1296–1302.
- Carpio, C.E., Isengildina-Massa, O. (2009). Consumer Willingness to Pay for Locally Grown Products: The Case of South Carolina, Agribusiness, 25, 412–426.
- Eastwood, D.B. (1996). Using Customer Surveys to Promote Farmers' Markets: A Case Study. Journal of Food Distribution Research, 27, 23–30.
- Eastwood, D.B., Brooker, J.R, Gray, M.D. (1999). Location and Other Market Attributes Affecting Farmers' Market Patronage: The Case of Tennessee. Journal of Food Distribution Research, 30, 63–72.
- Farnsworth, R.L., Thompson, S.R., Drury, K.A., Warner, R.E. (1996). Community supported agriculture: filling a market niche. Journal of Food Distribution Research, 27(1), 90–98.
- Feenstra, G.W., Lewis, C., Hinrichs, C.C., Gillespie, G.W., Hilchey, D.L. (2003). Entrepreneurial outcomes and enterprise size in U.S. retail farmers' markets. American Journal of Alternative Agriculture, 18, 46–55.
- Gillespie, G., Hilchey, D., Hinrichs, C., Feenstra, G.W. (2007). Farmers' markets as keystones in rebuilding local and regional food systems. [In:] Remaking the North American Food System. C. Hinrichs and T. Lyson (Eds). University of Nebraska Press, Lincoln.
- Guptill A., Wilkins, J.L. (2002). Buying into the Food System: Trends in Food Retailing in the U.S. and Implications for Local Foods, Agriculture and Human Values, 19, 39–51.
- Hardesty, S.D. (2008). The Growing Role of Local Food Markets. American Journal of Agricultural Economics, 90, 1289–1295.
- Ilbery, B., Maye, D. (2005). Food Supply Chains and Sustainability: Evidence from Specialist Food Producers in the Scottish/English Borders. Land Use Policy, 22, 331–344.
- Keeling-Bond, J., Thilmany, D., Bond, C. (2009). What Influences Consumer Choice of Fresh Produce Purchase Location? Journal of Agricultural and Applied Economics, 41(1), 61–74.
- Kolodinsky, J.M., Pelch, L.L. (1997). Factors influencing the decision to join a community supported agriculture (CSA) farm. Journal of Sustainable Agriculture 10, 2–3, 129–141.
- Lass, D., Brevis, A., Stevenson, G.W., Hendrickson, J., Ruhf, K. (2003). Community supported agriculture entering the 21st century: results from the 2001 National Survey. Retrieved from: http://www.cias.wisc.edu/wp-content/uploads/2008/07/csa\_survey\_01.pdf (accessed: 10.11.2014).
- $\label{lem:maovZ673Tnfo*fd8T3ysBa9ncJb4Z81pTNEIQUaoTvYJIe6Qs/NESAWGCSA2001.pdf (accessed: 2.11.2014). \\$
- Loureiro, M.L., Hine, S. (2002). Discovering Niche Markets: A Comparison of Consumer Willingness to Pay for Local (Colorado Grown), Organic, and GMO-Free Products. Journal of Agricultural and Applied Economics, 34, 477–487.
- McBride, W.D. (2005). Farm income less important to most corn farm households. AmberWaves. Retrieved from: www.ers.usda.gov/data/costsandreturns/ (accessed: 2.11.2014).
- Oberholtzer, L. (2004). Community Supported Agriculture in the Mid-Atlantic Region: Results of a Shareholder Survey and Farmer Interviews. Stevensville, Md.: Small Farm Success Project.

- Ostrom, M. (2007). Community supported agriculture: is it working? [In:] Remaking the North American Food System. C. Hinrichs and T. Lyson (Eds). University of Nebraska Press, Lincoln.
- Pirog, R. (2009). Local Foods: Farm Fresh and Environmentally Friendly. Retrieved from: http://www.leopold.iastate.edu/research/marketing\_files/WorldBook.pdf (accessed: 2.11.2014).
- Sabih, S.F., Baker, L.B.B. (2000). Alternative financing in agriculture: a case for the CSA method. Acta Horticulture, 524, 141–148.
- Schlicht, S., LeGallic, T., Volz, P., Weckenbrock, P. (2012). Community Supported Agriculture An overview of characteristics, diffusion and political interaction in France, Germany, Belgium and Switzerland. Retrieved from: http://www. agronauten.net/wp-content/ uploads/2014/03/Community-Supported-Agriculture-An-overview-of-characteristicsdiffusion-and-political-interaction-in-France-Germany-Belgium-and-Switzerland.pdf (accessed: 6.10.2014).
- Tegtmeier, E., Duffy, M. (2005). Community Supported Agriculture in the Midwest United States: a regional characterization. Leopold Center for Sustainable Agriculture, Ames, Iowa.
- Varner, T., Otto, D. (2008). Factors affecting sales at farmers' markets: an Iowa study. Review of Agricultural Economics, 30(1), 176–189.
- Zepeda, L., Leviten-Reid, C. (2004). Consumers' Views on Local Foods. Journal of Food Distribution Research, 35, 1–6.
- Zięba, K., Ertmański, S. (2006). Rola etnocentryzmu konsumenckiego oraz kraju pochodzenia produktu w podejmowaniu decyzji zakupowych konsumentów. Zeszyty Naukowe Uniwersytetu Szczecińskiego, 438, 121–126.

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Streszczenie. W artykule opisano działania i specyfikę grup RWS (rolnictwo wspierane przez społeczność) jako jednej z form obserwowanego trendu związanego z tworzeniem różnego rodzaju nieformalnych, wzajemnych inicjatyw społecznych. Takie działania można zaliczyć do zrównoważonej konsumpcji. W artykule przedstawiono wyniki badań przeprowadzonych na grupach RWS działających w Polsce. Wyniki badania powinny przyczynić się do dyskusji. Dane z badań podstawowych połączono z analizą porównawczą. Badania pokazują, że projekty RWS różnią się znacznie i że istnieje wiele podejść w ramach tego ruchu.

Slowa kluczowe: RWS, rolnictwo wspierane przez społeczność, zrównoważona konsumpcja

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